NIILM University

CAD/CAM

Subject: CAD/CAM **Credits:4**

SYLLABUS

MS Word

Introduction; Tools Introduction; Formatting of Document; Picture Tools; Forms; Tables; Frames; Image & Text Manipulation.

Corel Draw

The Basics; Start - Up and File Handling; Rectangle and Ellipses; Select, Move, Copy and Size Complex Shapes; Lines and Curves; Three Types of Nodes and Paths; Page and Document Setup; Color and Fills; Working with Text; Text Special Effects; Object Arrangement; Symbols, Clip Art, & Bitmaps.

Photoshop 7.0

Introduction to Photoshop; Photoshop Menus; Color Theory; Photoshop Tools; Photoshop Paths and Tools.

Suggested Readings:

1. What every Engineer should know about Practical CAD/CAM Applications**,** John Stark, Delmar Publishers.

2. Parametric and Feature-based CAD/CAM: Concepts, Techniques, and Applications, Jami J. Shaw, Wiley John and Sons.

CAD/CAM

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LESSON 1
INTRODUCTION MENU BAR, TOOLS

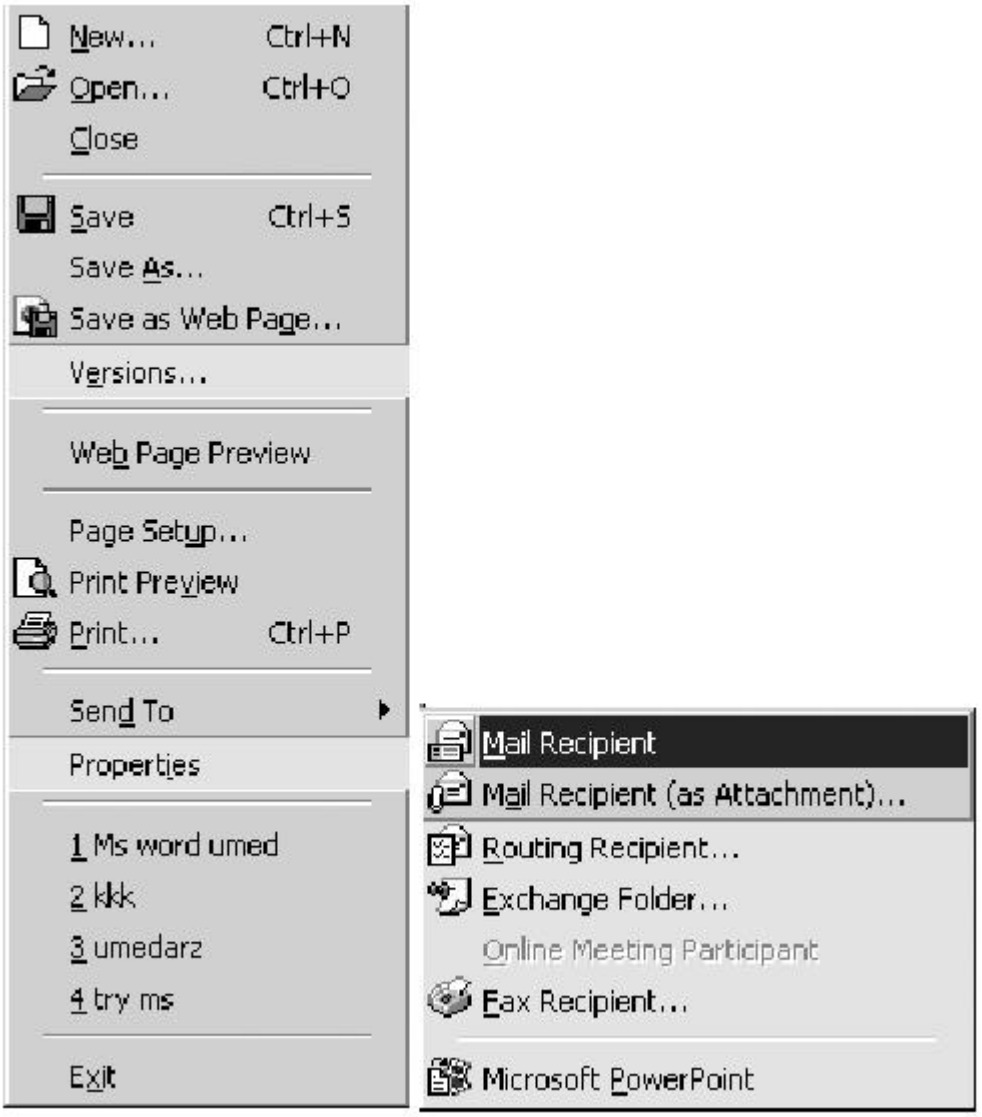
Introduction

Ms word: Microsoft word

Menu bar

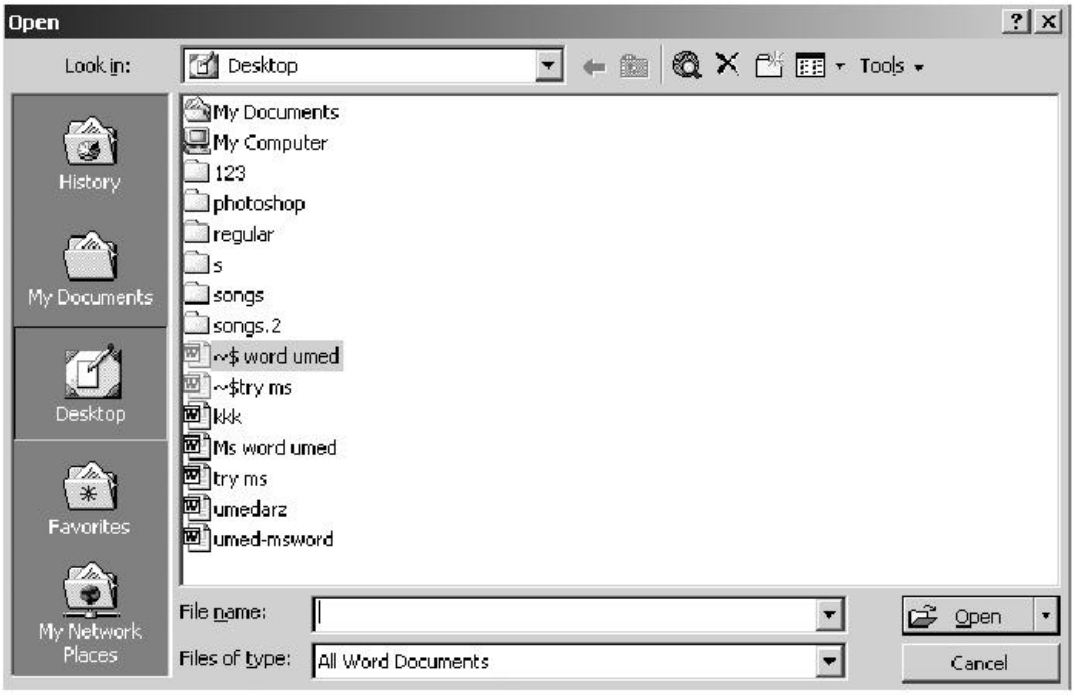
At the top of screen there is menu bar :

File:



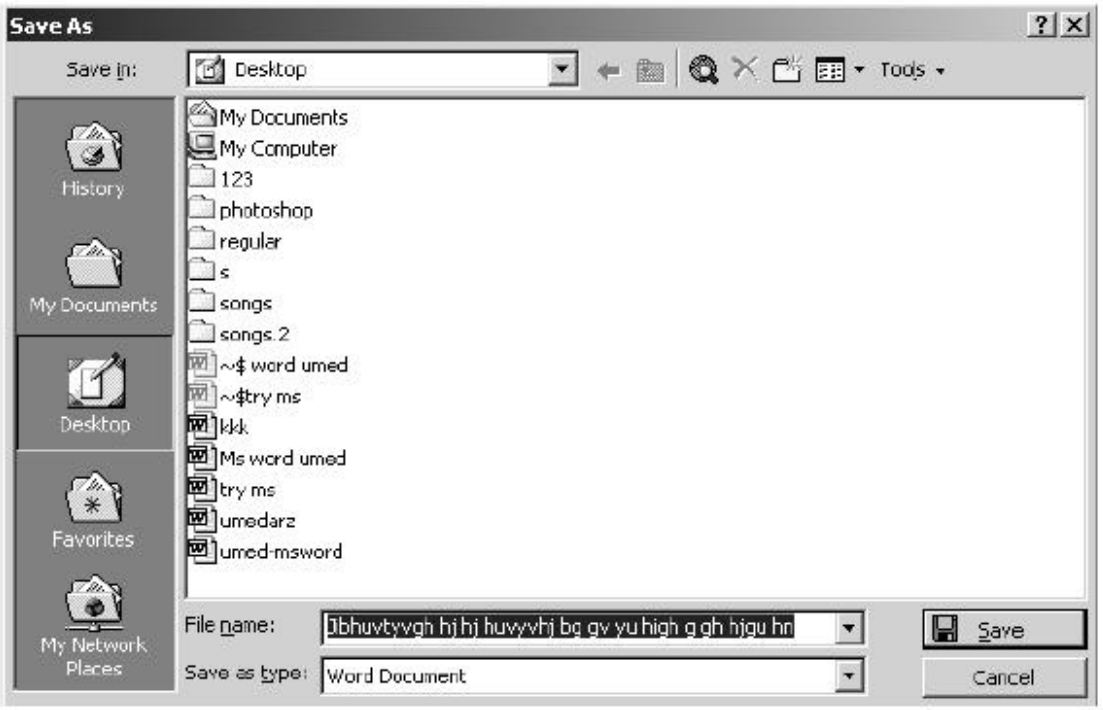
To open a new documemt:
Go to the menu bar at the top and go to the file option and click new enter for the blank document and ok.(from the key board press ctrl+n)

open :



click on it and a open menu bar will appears,in that different option are there as desktop, floopy, my document,c: ,d: etc in that you can open your file in where you had saved it.while mentioning thfe file name in option .if you will click on the desktop then all the file on the desktop will be visible. In this you will also see a delete command its for the delete an file. After than there is new folder command its for creating new folder in that you can save any document.(from the key board press ctrl+o)

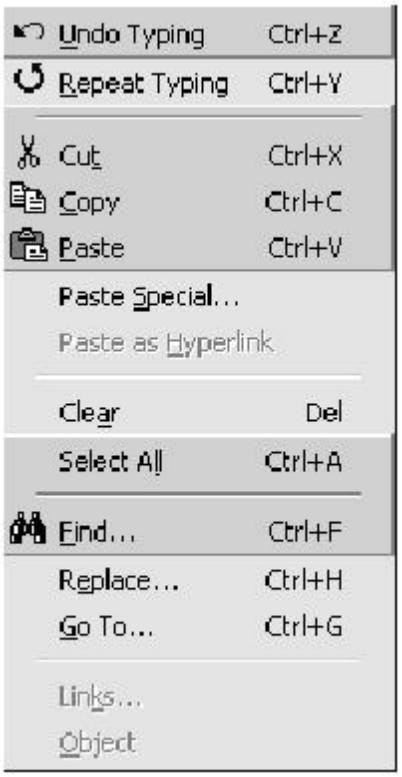
save: v



- print preview: by this command you can see the pint preview of your page , the working area becomes full page as ut will after print out. If you want to make some changes or adjust something then click on the page and you can make it.while in the print preview you will see the zoom option and close,by zoom you can zoom the preview area ,and by the close command you can close the print preview and the normal page will come.

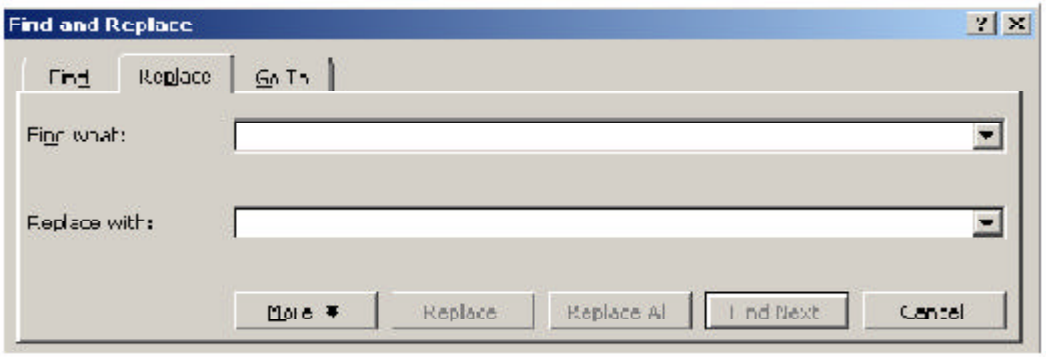
- print : by this you can take the print out of your document..(from the key board press ctrl+p)
- send to: while clicking on this command you can send your document to different option.
- exit: if you want tot exit from the ms-word than click on exit.

Edit:



- undo typing:if you made some mistakes or you want the previous change reappears than this command is used ,it will helps to reappears that changes. .(from the key board press ctrl+z)
- paste: it is used to paste some selected items .(from the key board press ctrl+v)
- select all:it is used to selsect all the documents on which you are working. .(from the key board press ctrl+A)
- find:it is used to find the words and you want to replace it with other word. The same word will be changed in all the pages you are working. .(from the key board press ctrl+F)

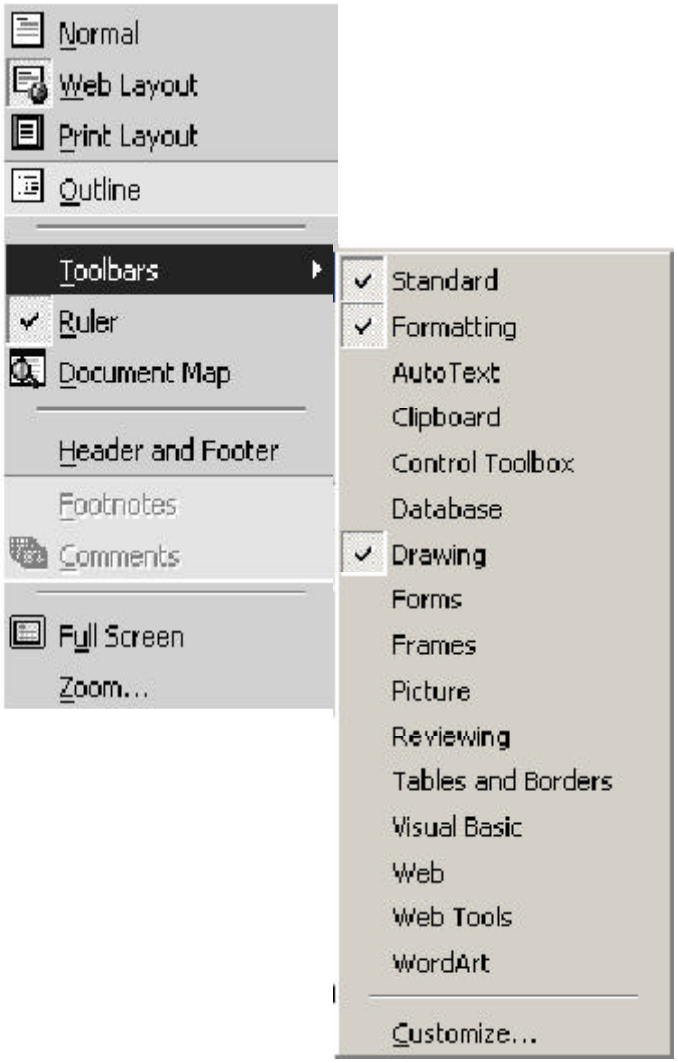
replace:



it is also can be used like find option. .(from the key board press ctrl+H)

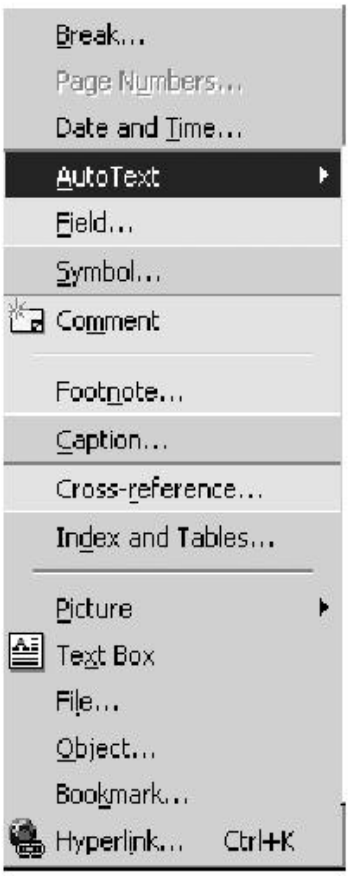
- go to : this option is used to go to the desired page any time of the working. .(from the key board press ctrl+G).

View:



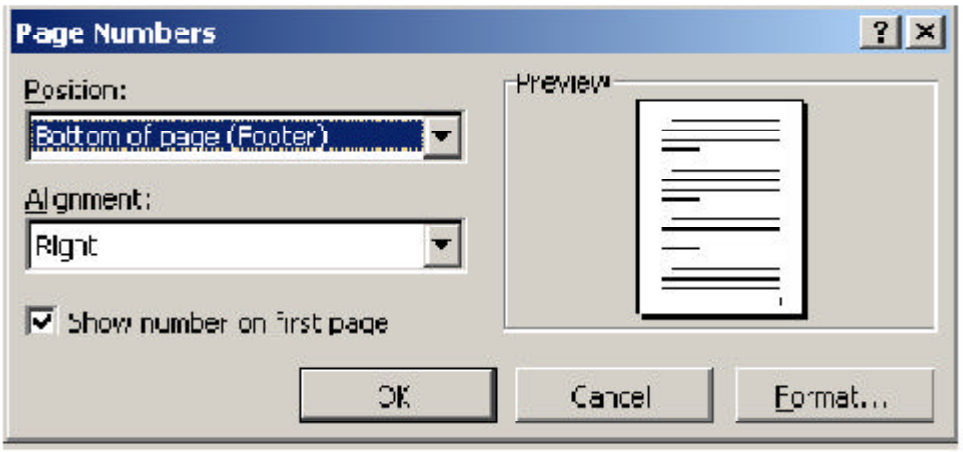
- rulers:by this command rulers on the top of the page can be displayed and be removed.
- header and footer: we can insert page nos with date heading.
- full screens:by thispage can be visible all over the screen,the menu bar will be removed.
- zoom:by this the page can be zoomed from width wise,length wise,even if the letters can be zoomed.

Insert:



- Break: this command breaks the page as columm wise,even page nos,next page,odd page,continuous opage numners.

Page numbers:



by this command we can insert page numbers in the following ways:

Start page numbering with 1 after the first page:

1. If you haven't done so already, insert a section break where you want to start page numbering. (section break: A mark you insert to show the end of a section. A section break stores the section formatting elements, such as the margins, page orientation, headers and footers, and sequence of page numbers. A section break appears as a double dotted line that contains the words "Section Break.")

Insert a section break

- Click where you want to insert a insert a section break.
- On the Insert menu, click Break.
- Under Section break types, click the option that describes where you want the new section to begin.

2. Click in the section in which you want to start page numbering.
3. On the View menu, click Header and Footer.
4. If you want to position the page numbers at the bottom of the page, click Switch Between Header and Footer ,on the Header and Footer toolbar.
5. On the Header and Footer toolbar, click Same as Previous .
6. On the Insert menu, click Page Numbers.
7. Click Format.
8. In the Start at box, enter 1.

Start page numbering with a number other than 1

1. If your document is divided into section, (section :A portion of a document in which you set certain page formatting options. You create a new section when you want to change such properties as line numbering, number of columns, or headers and footers. Until you insert section breaks, Microsoft Word treats a document as a single section.)
2. click in the section in which you want to change the starting page number.
3. On the Insert menu, click Page Numbers.
4. Click Format.
5. In the Start at box, enter a number.

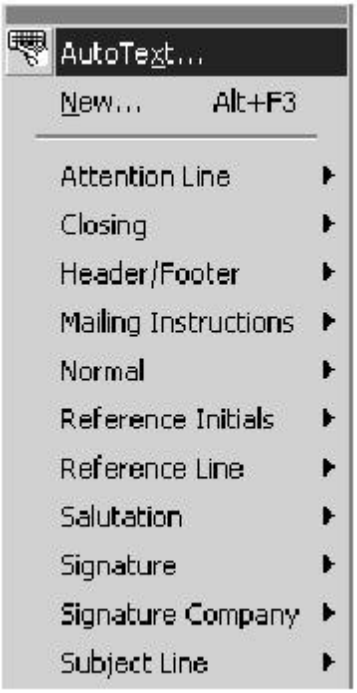
Restart page numbering with 1 for each chapter or section

If you haven't already done so, insert a section break to restart page numbering.

1. Click in a section or select multiple sections in which you want to restart page numbering.
2. On the Insert menu, click Page Numbers.
3. Click Format.
4. In the Start at box, enter 1.

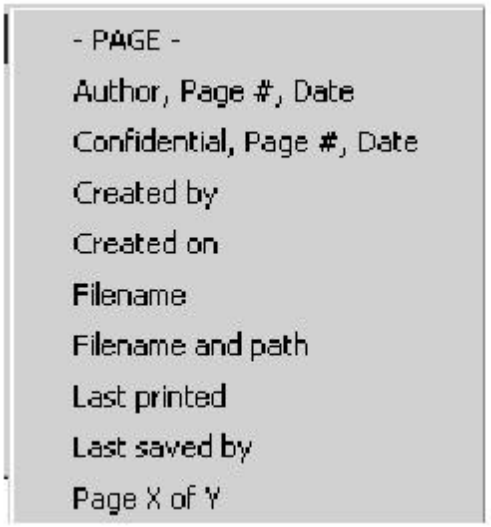
- Date and time:
- By this we insert date and time any time and any where on the page

Auto text: in this we find these commands and we can insert many words directly from the menu -



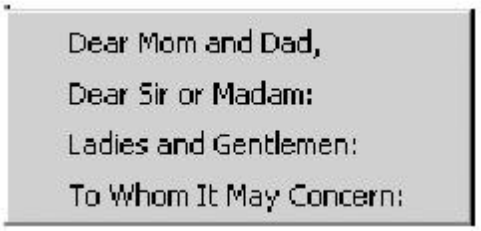
Closing: in this we can insert these words =

Header/footer: in this we do the following =



Page- by this we can insert page numbers any time.
Author,page,date- by this name,page no,and date can be display.
Confidential,page,date- this also the one way of inserting page,date.
Created by- this is used to know that who created the document.
Created on-this will tell the date on which it made.
File name- this will shows the filename.
Filename and path- this will shows the file name and path (all the information.)
Last printed –this will shows the dtae and the time last printed of this document.
Last saved- it shows when the document last saved.
Page X onY- it will shows the page numbers.

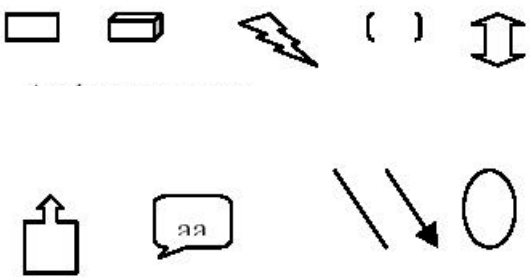
Saluation :



Dear Mom & Dad,
Dear Sir or Madam:
Ladies & Gentlemen:
To whom it may conern

- Field:this will shows the categories andf fiekd name such as_date and time,index table,numbering and for its field name will be ceate date,date,time,save date.
- Symbol: this will helps us to insert different types of symbol.
- footnote: this will help to insert a area at the bottom of the page along with numbers to write some important notes.
- caption: this helps to insert some headings alom\ng with page numbers in different ways, like Equation 1 or Equation I or Equation I etc.
- Picture: in this we will see – clip art ,from file, auto shapes, word art, chart.

Clip art = in this we will find different pictures related to different themes or topics and we can use these pictures according to our need in ms word. topics can be like academic,animals, business, buildings, industry, nature, education, music etc
From file = we can take pictures from any where in the computer such as desktop, my pictures, my computers,document,c:, d:, or floppy etc.
Auto shapes = in this we get various options,that we can use in document as our need. Such as

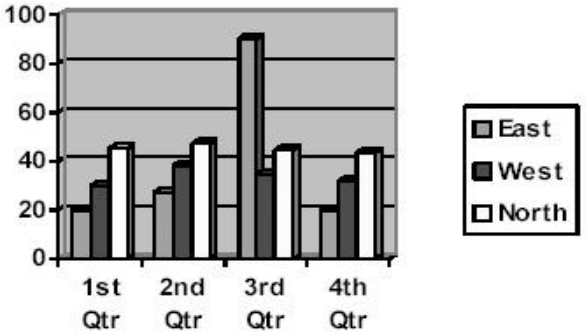


And many more.

Word art = in this we will find different types pf designs for the text. Click the design you want for your text effect. To change the shape later, select the text effect, and click WordArt Shape on the WordArt toolbar.
For ex:

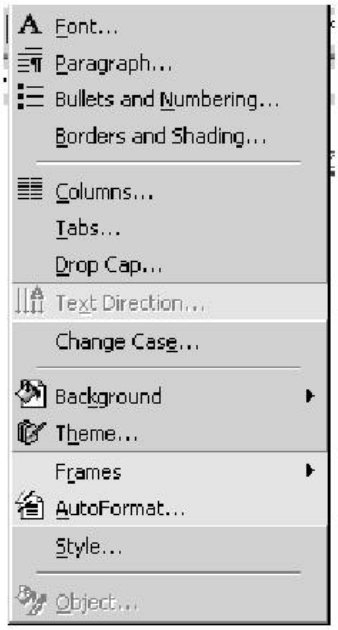
,and many more.

Chart = in this we find different of graphs and tables.
For examples:

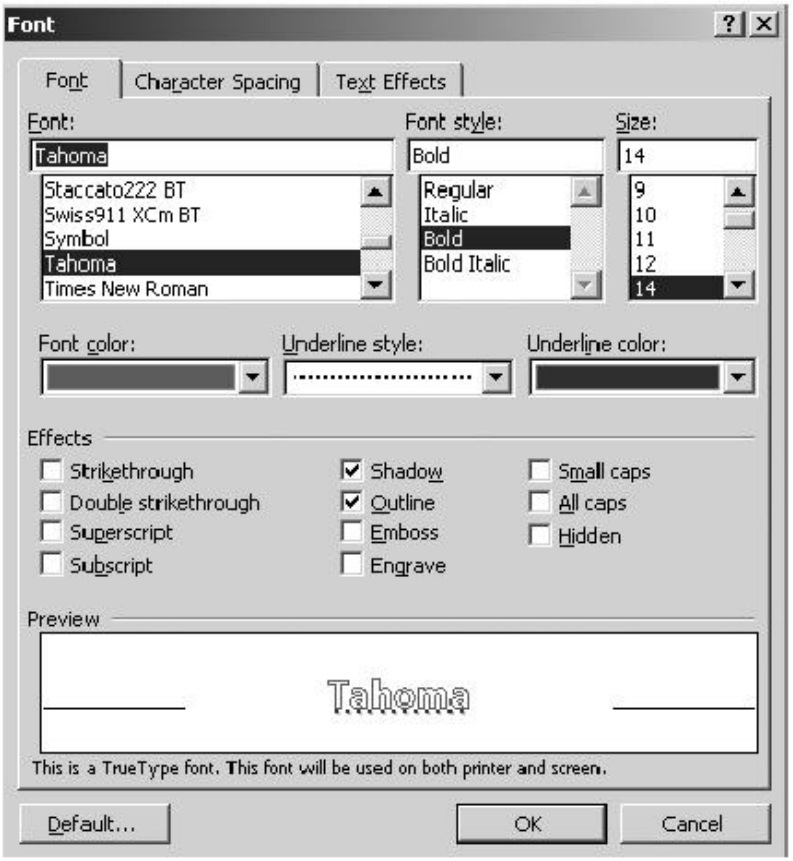


- Text box: by this command we create a box of desired size and can be used for writing text ,then this box can be moved anywhere on the page and can be placed as required.
- File: this command is used to insert a file from anywhere in the computer in the working document.
- Object: while working in ms word we can open any picture or file from photoshop ,illustrator,my document, corel draw, paint brush, etc.

Format:

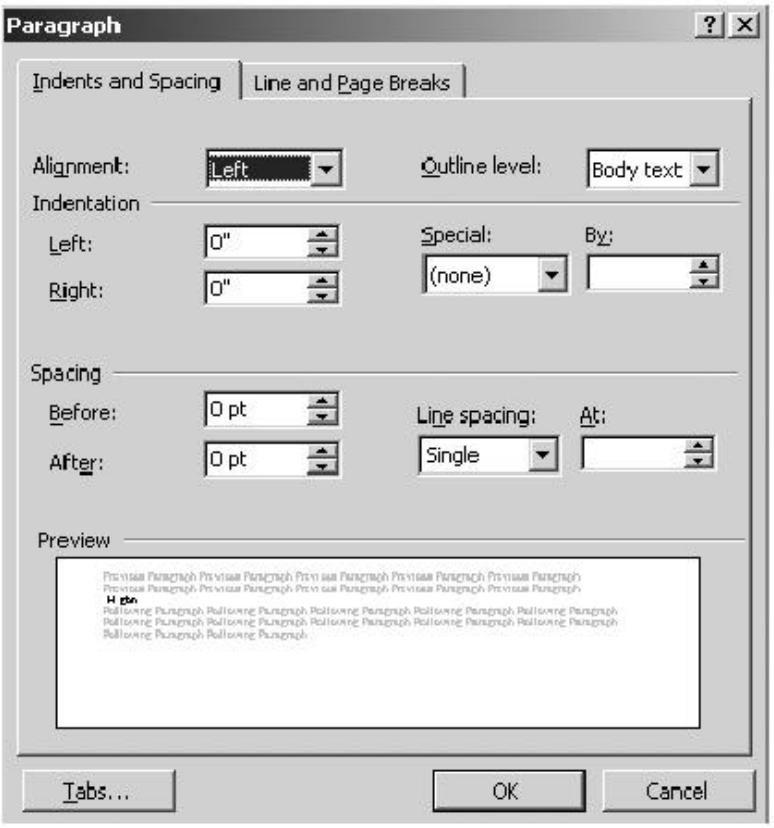


Font:



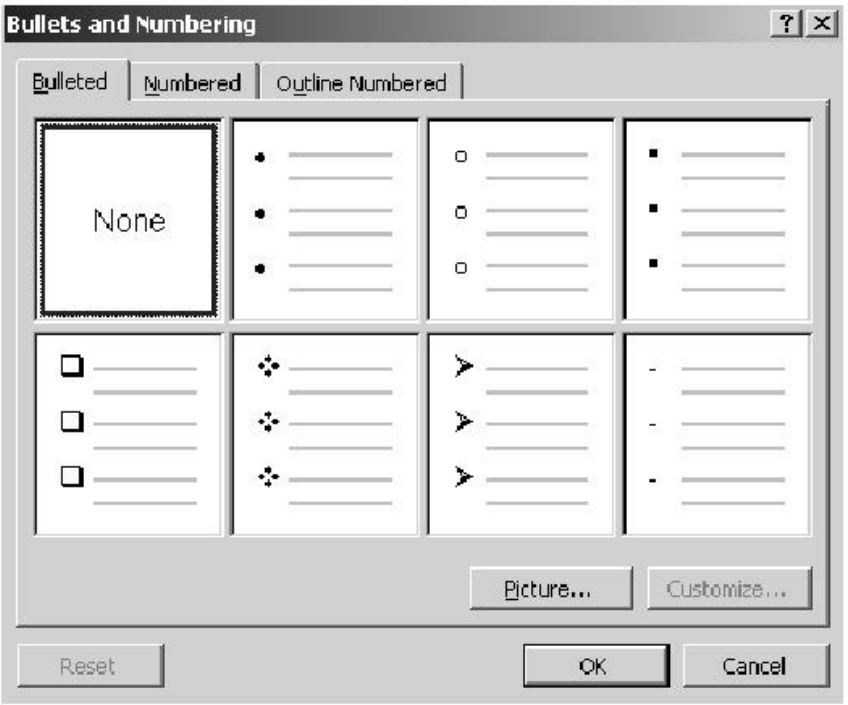
in this we will find a table containing font, size,font style, effects, color, and a preview option. we select font of our text, the size effects for the text and we can choose the color. For ex-

Paragraph:



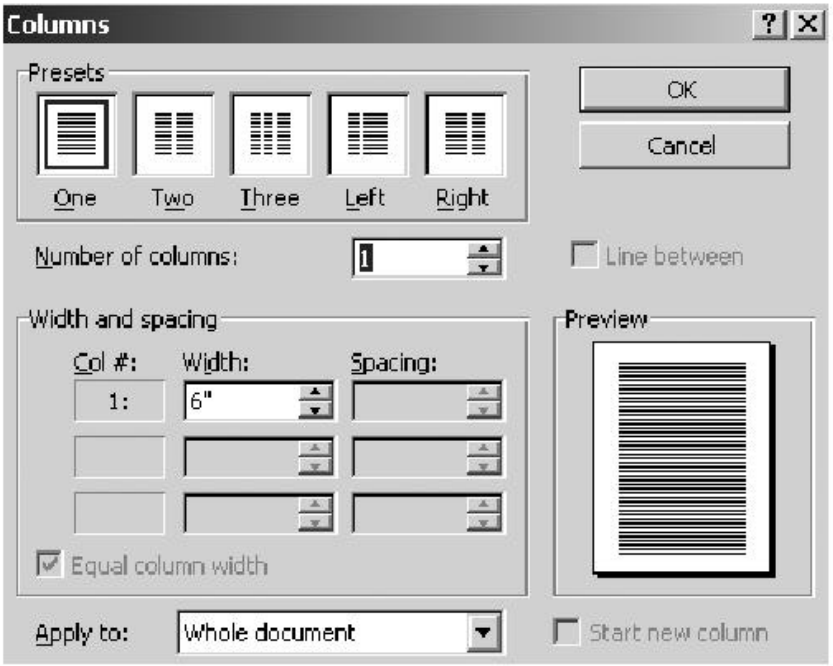
in this we will find the page settings as having text in center , left, right, justify. This will helps to place the text according the need.

Bullets and numbering:



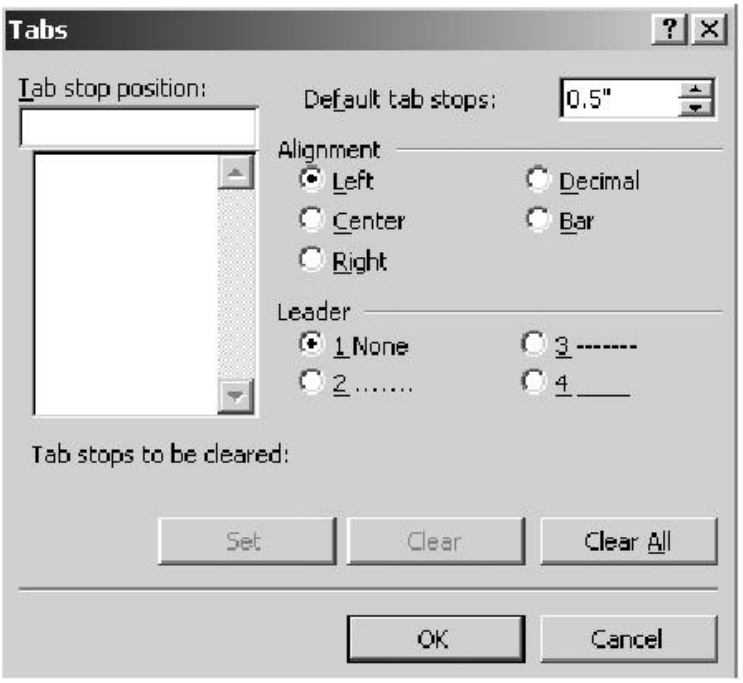
this contains bullets and numbering in different styles and forms, it contains another picture bullets also. apart from this it also contains numbers bullets as 1. , 1) , A. , a) , i. , I)

Columns:



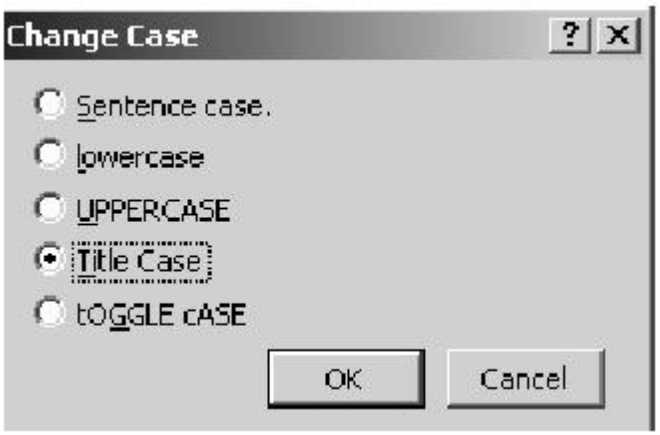
this having different types of columns styles,alongwith width size,no of columns,and spacing.

Tabs:



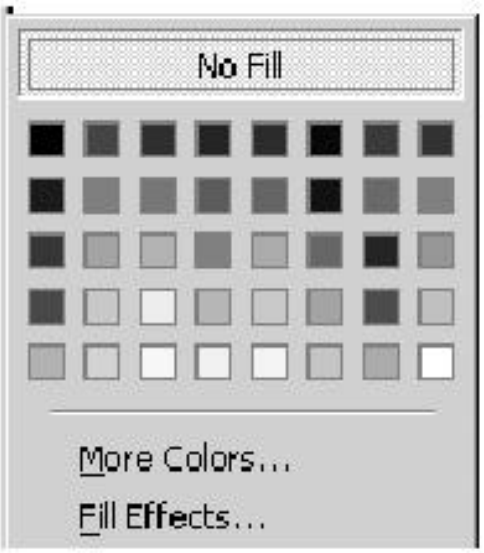
this will help to set the tab,with alignment.

Change case:

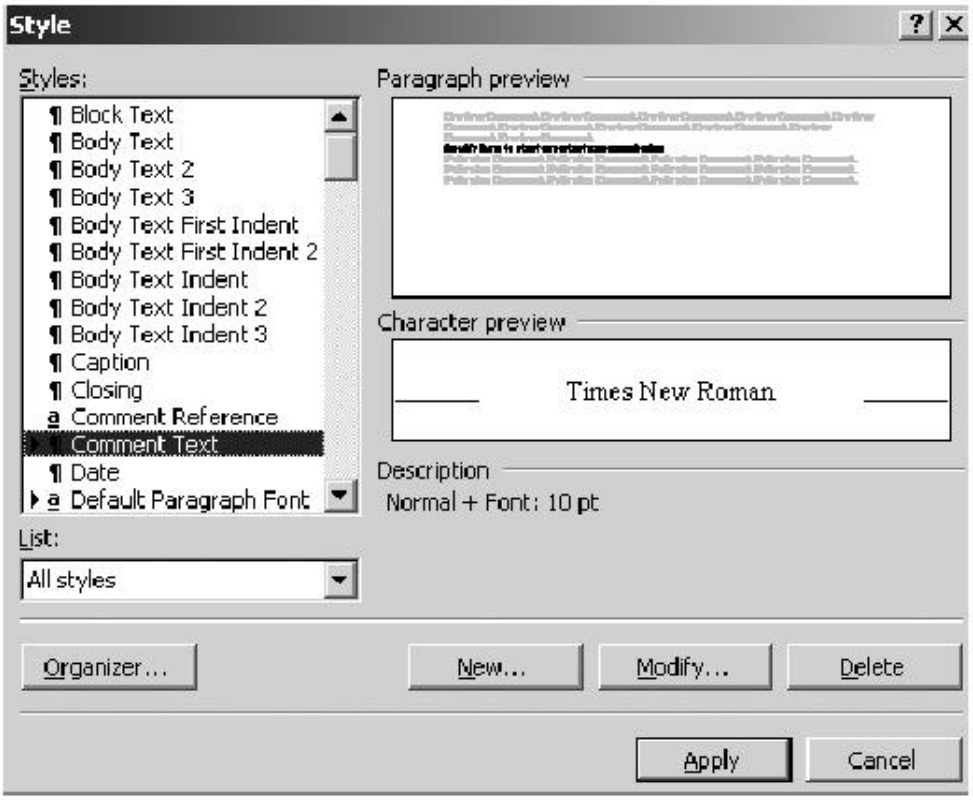


this will help to change the words as lower case, upper case, title case.

Background:

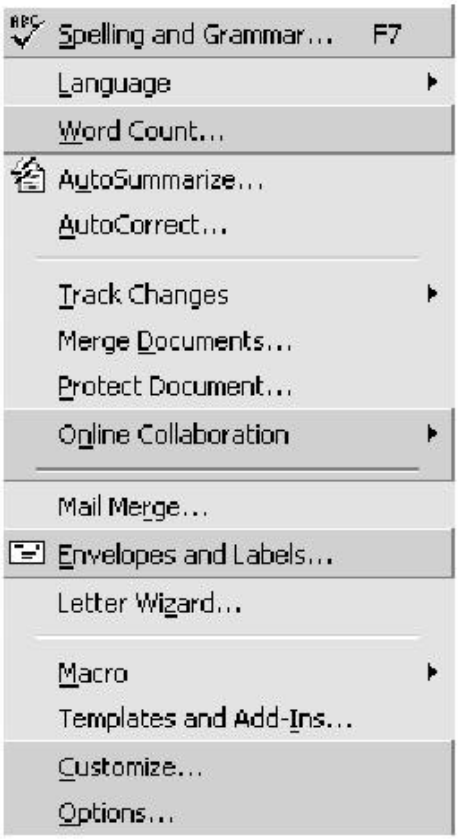


Theme:



in this we have style , and one paragraph preview option.these helps to change the text font .

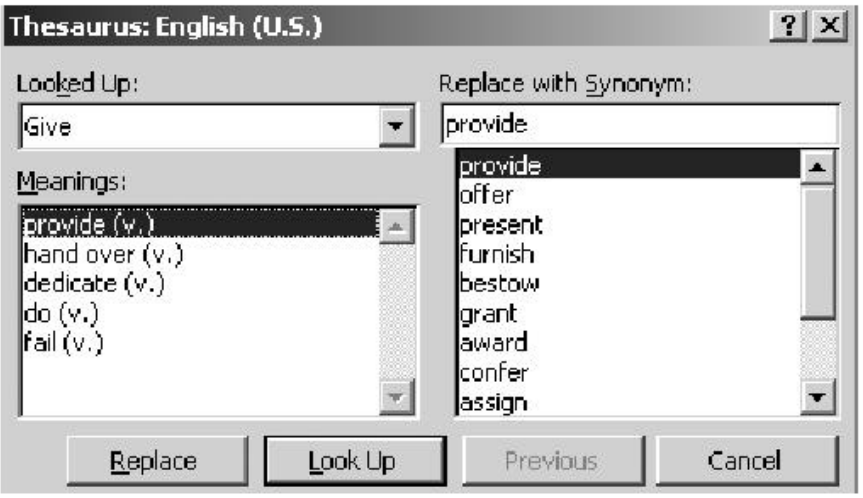
Tools:



spelling & grammar

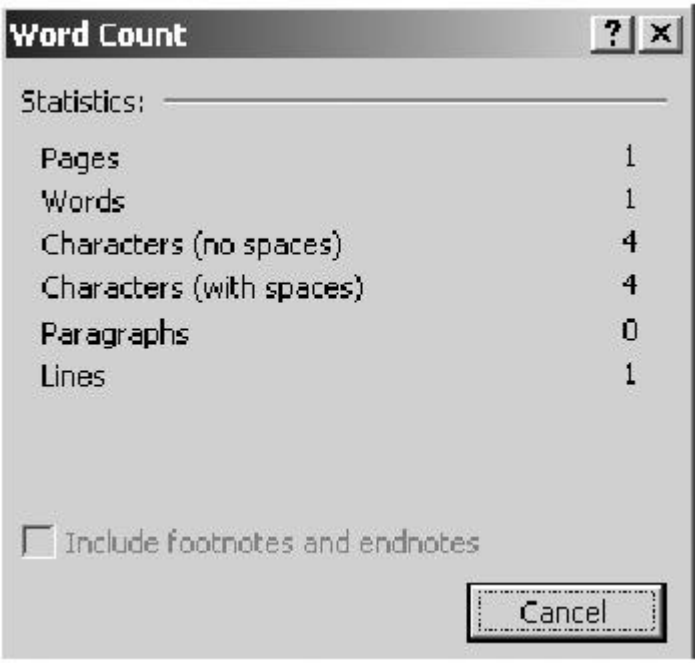
this command is used to help in spelling checking and grammatical checks.

language =



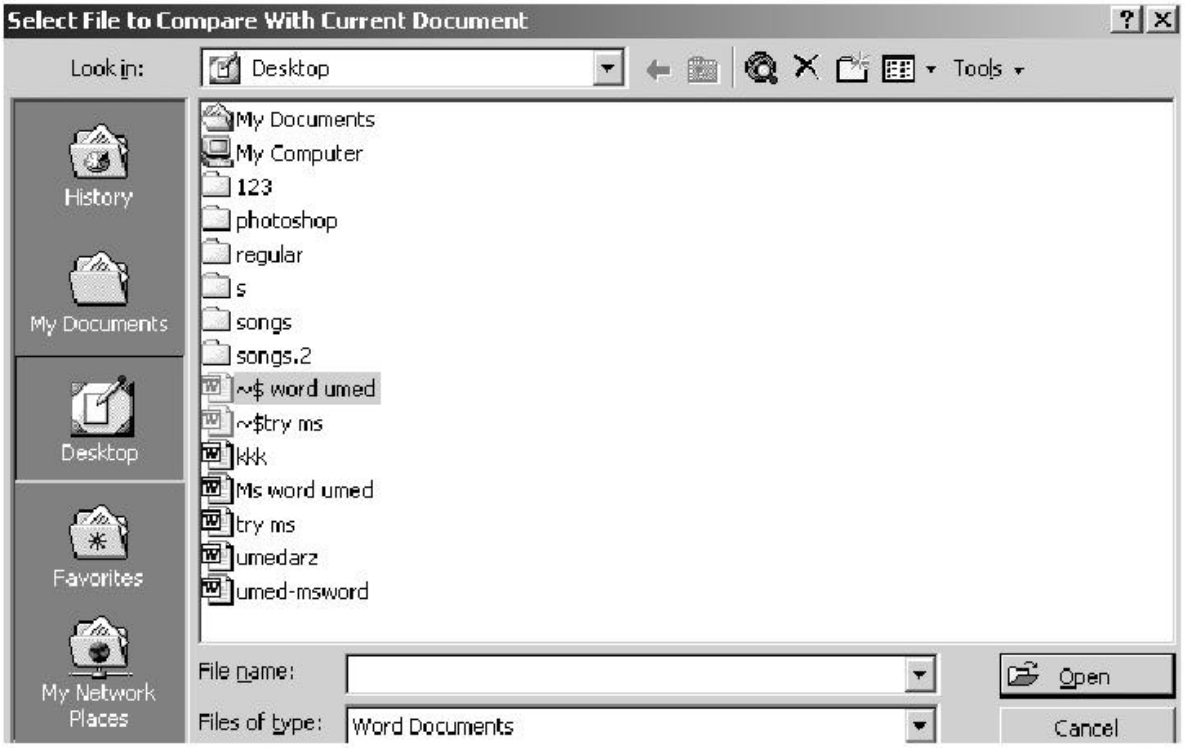
in this we check the language and replacing it with the word we want.

word count =



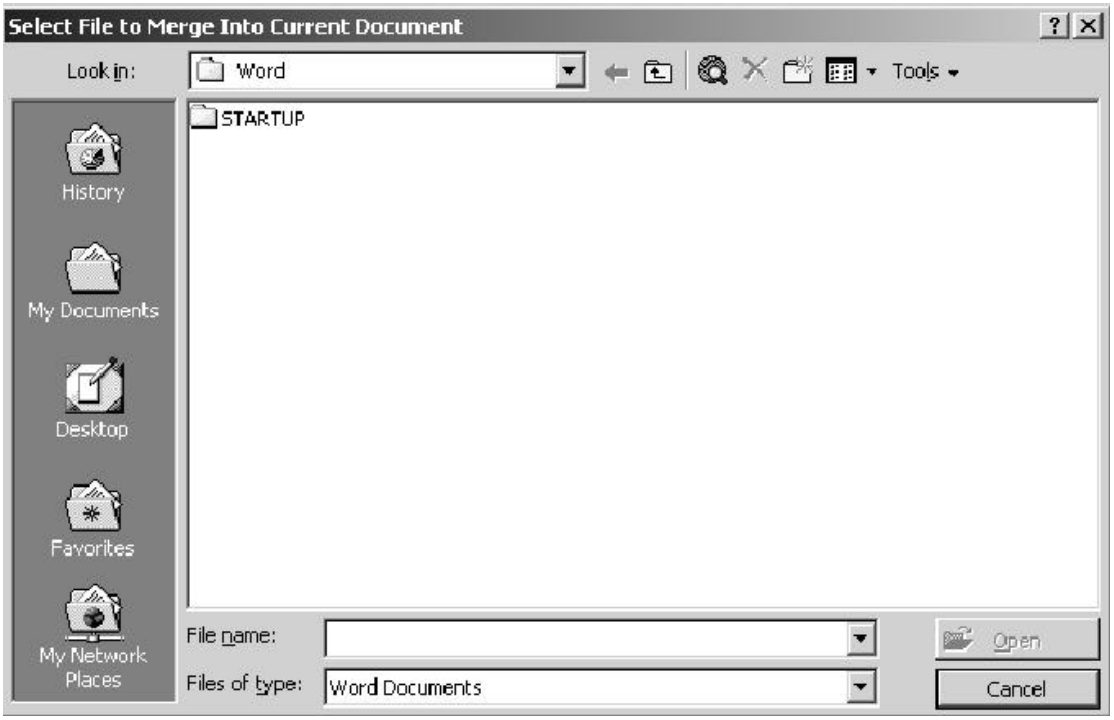
this helps us to know about the no of pages,words , paragraphs, lines,

Track change-compare document =



this is used compare onew file with the current document.

merge document

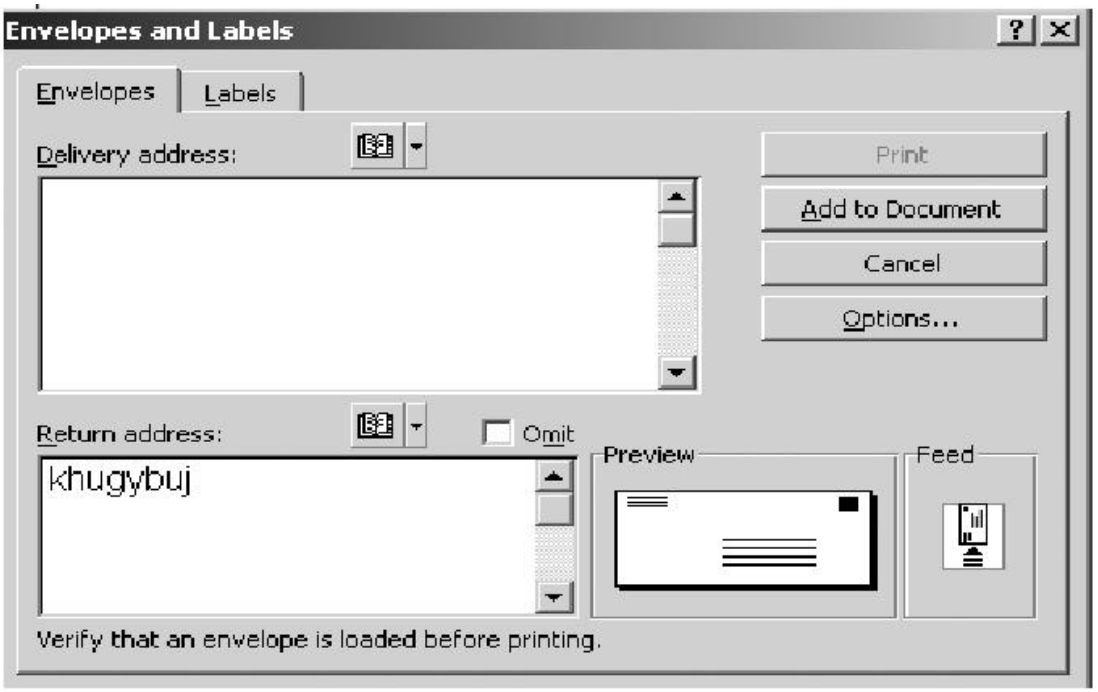


when we want to merge one file with the current document then this command is used.

Protect document =

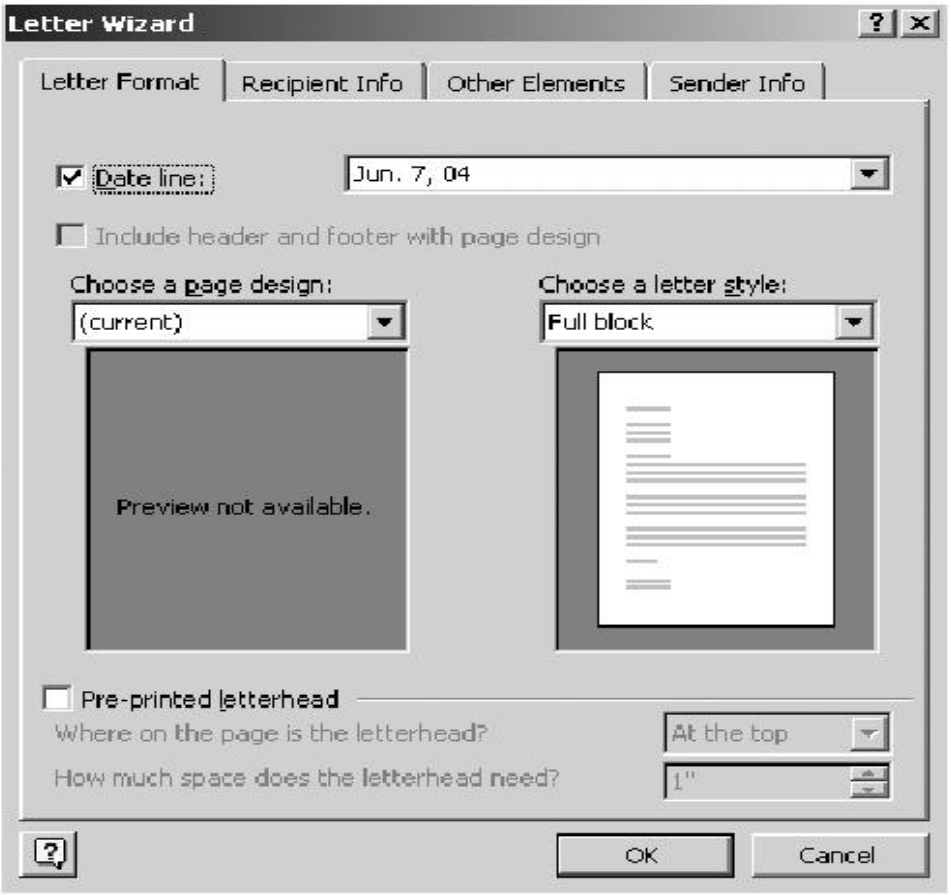
this is used to lock the document with a password,so that this can be protected.

envelopes and labels =



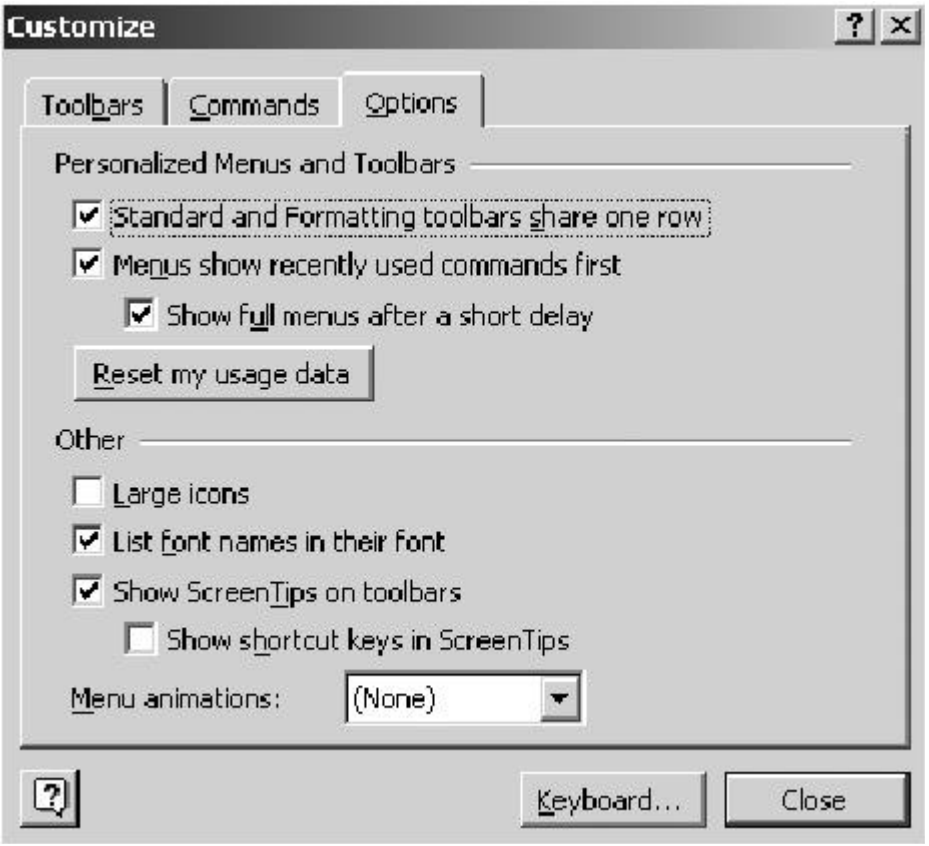
by this we will a small page at the top of the document on which the delivery and the return address would be mentioned, so that we can know that which document is for whom. This will make our work easy.

Letter wizard =

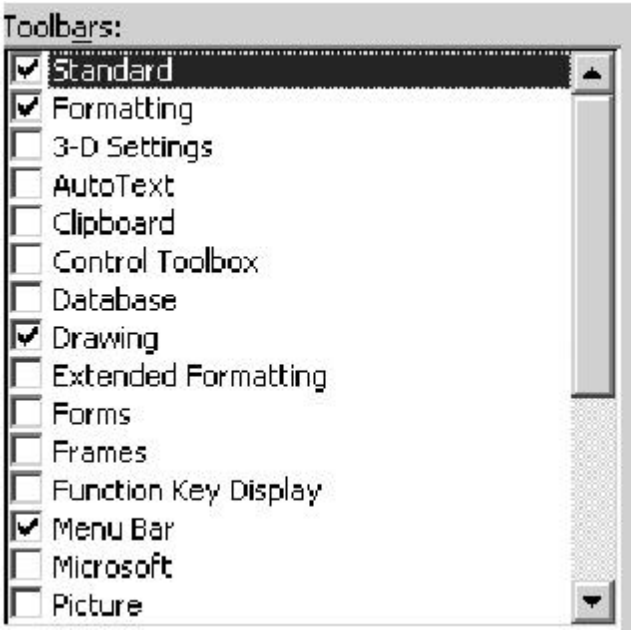


this provide the page format of the writtng letter along with the date and the type of page design, different types of letter style,its alson having the records of the recipient addresses ,and senders addresses

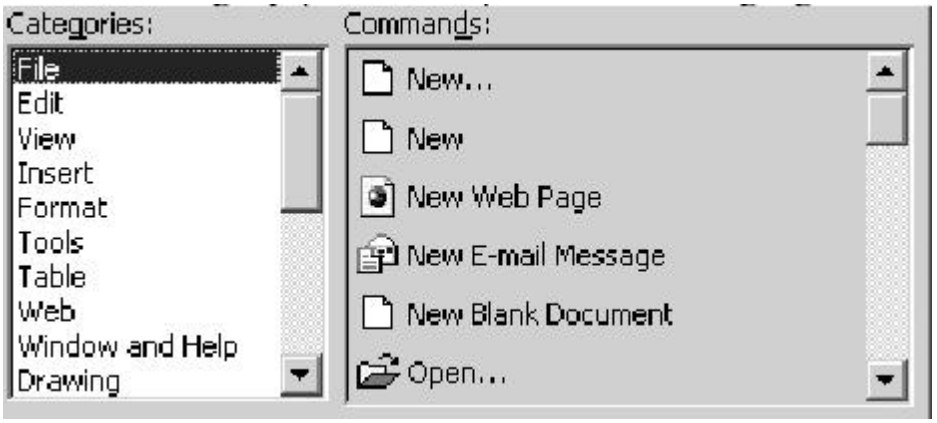
customize



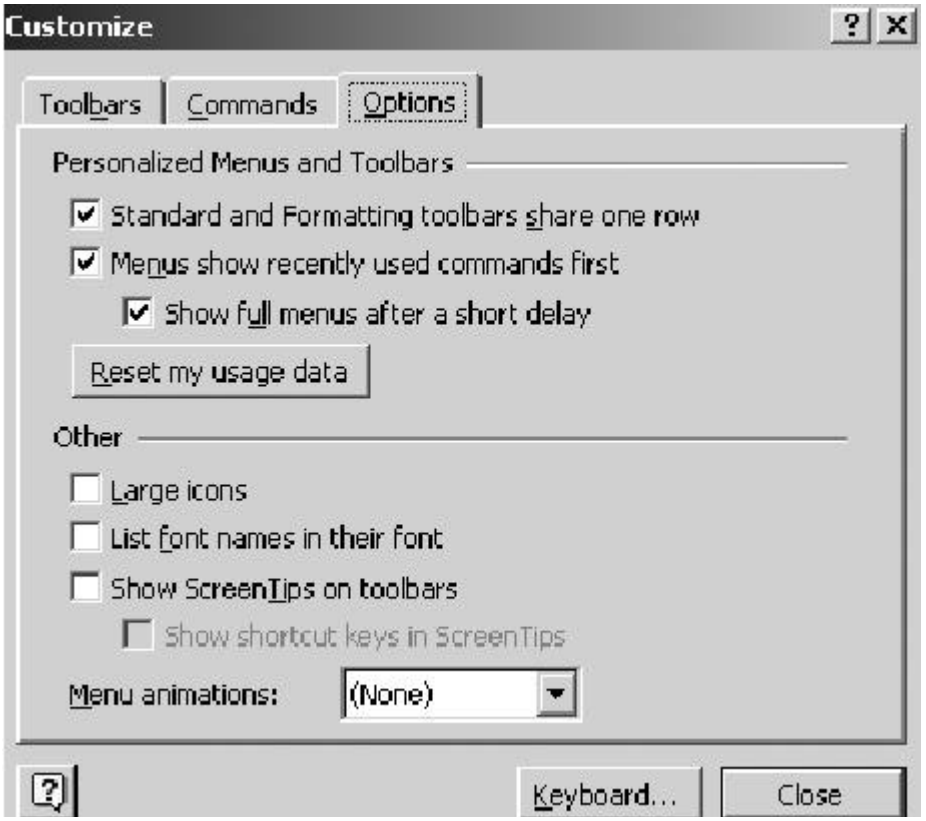
it having Toolbars-Lists the available toolbars. To display a toolbar, select the check box next to the name. To hide a toolbar, clear the check box.



commands- Displays categories of commands, organized by menu name or by type. Click a category to change the list of commands in the Commands box. The Built In Menus category provides options for changing menus.

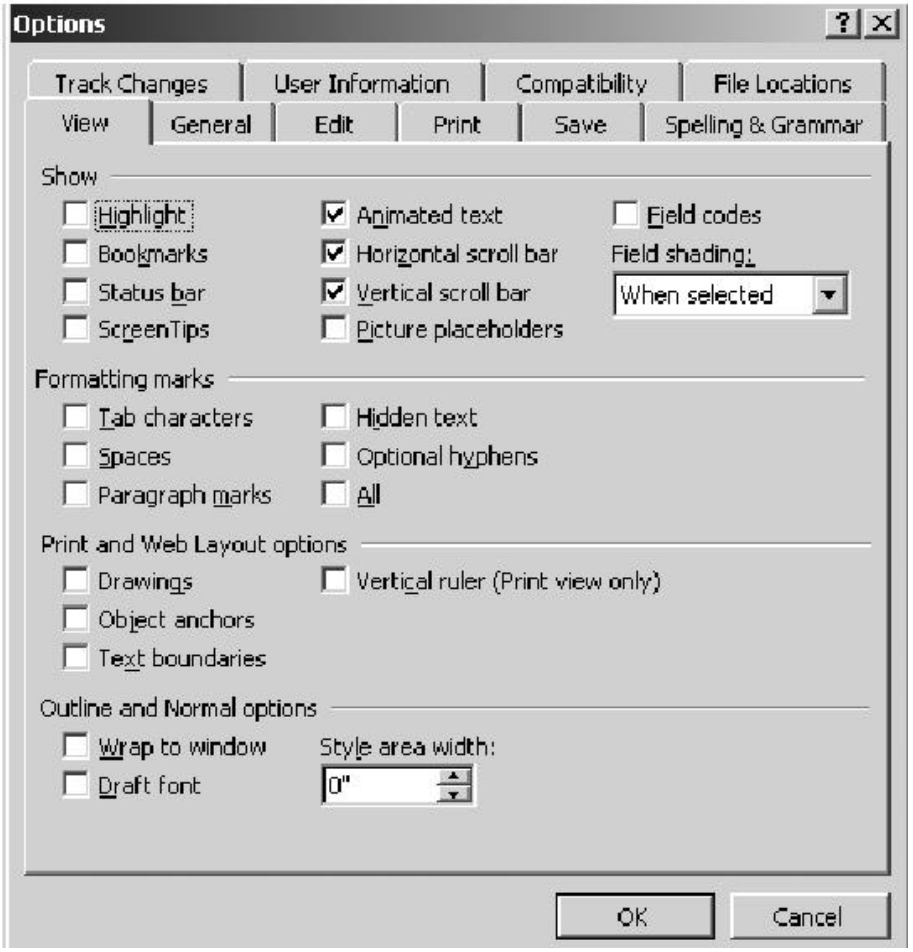


Options-



Select options to customize the way that you work with toolbars and menu commands.
When the Standard and Formatting toolbars are displayed, this option positions both toolbars on the same row in the document window. If you're not sure if the Standard or Formatting toolbar is displayed, point to Toolbars on the View menu. A check mark appears next to every toolbar that is currently displayed.
Shows basic and frequently used commands on personalized versions of menus. Clear this check box if you want to show all the commands on the menus. When you select or clear this check box, the setting affects all your Microsoft Office programs.
Shows basic and frequently used commands on personalized versions of menus. Clear this check box if you want to show all the commands on the menus. When you select or clear this check box, the setting affects all your Microsoft Office programs.
Increases the size of toolbar buttons so that they are easier to see.
Displays on-screen descriptions of toolbar buttons when the pointer pauses on them.

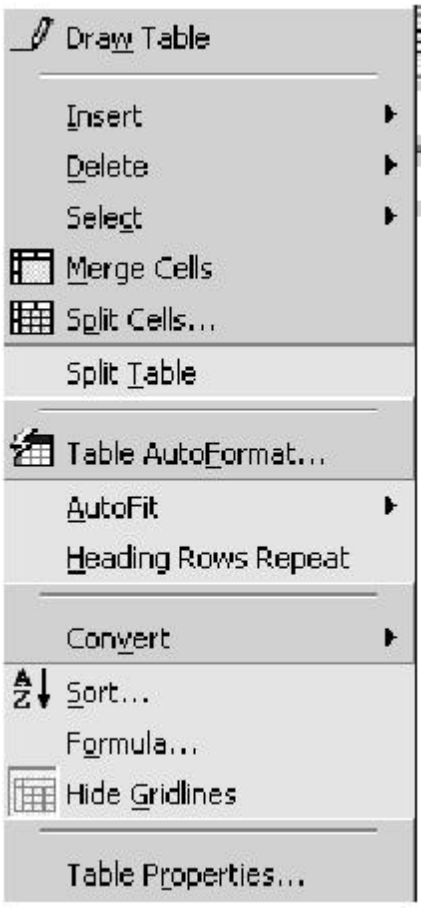
option =



show- Select the way you want items to display on the screen.
Formatting marks- Select the formatting marks you want to display on the screen.
Print and web layout- Select the printing and Web layout tools you want to appear on the screen.
Outline and normal options-Select the parts of the Word window you want to display on the screen.
General- Displays text as white characters on a blue background.
Adds sounds to certain actions or events throughout Word and Office. For example, Word plays a sound when an alert appears or when a process is complete. To change the sound that is associated with an event, open the Sounds folder in the Windows Control Panel. Your computer must have a sound card to play most sounds.
Select this check box if you want to select the converter that Word will use to open a file created in another application. Clear this check box if you want Word to select the correct converter automatically and open the document.
Automatically updates any information that's linked to other files each time you open a document. Click the default unit for the horizontal ruler and for measurements that you type in dialog boxes.
Sets options for sending and receiving e-mail messages in Microsoft Word, such as creating a signature and stationery. You can also set font options for sending and replying to e-mail messages in Word.

Save- Select the options you want Word to use for saving documents. Copies the previous version of a document as a backup copy every time you save a document. Each new backup copy replaces the previous backup copy. Word saves the backup copy in the same folder as the original. When you select Always create backup copy, Word clears the Allow fast saves check box because Word can create backup copies only when it performs a full save.
Select the file format you want Word to use by default each time you save a document.
If you type a password in the Password to open box, the document will open when a user types the correct password. If you forget or lose the password, you cannot open your document. A password is case-sensitive and can contain up to 15 characters, including letters, numerals, and symbols. Saves documents in the background, so you can continue working in Word while you save a document. A pulsing disk icon appears in the status bar when Word is saving in the background.
If you type a password in the Password to modify box, the document will open for editing when a user types the correct password. If you forget or lose the password, you can open your document only as read-only. A password is case-sensitive and can contain up to 15 characters, including letters, numerals, and symbols.

Table:



Draw table = Display or hide gridlines in a table -

- On the Table menu, click Show Gridlines or Hide Gridlines.

Note In Microsoft Word documents, all tables by default have a black ½-point, single-line, solid-line border that is printed. If youremove this border, the gridlines remain until you hide them.

Eraser-To delete text or an object on the Whiteboard.

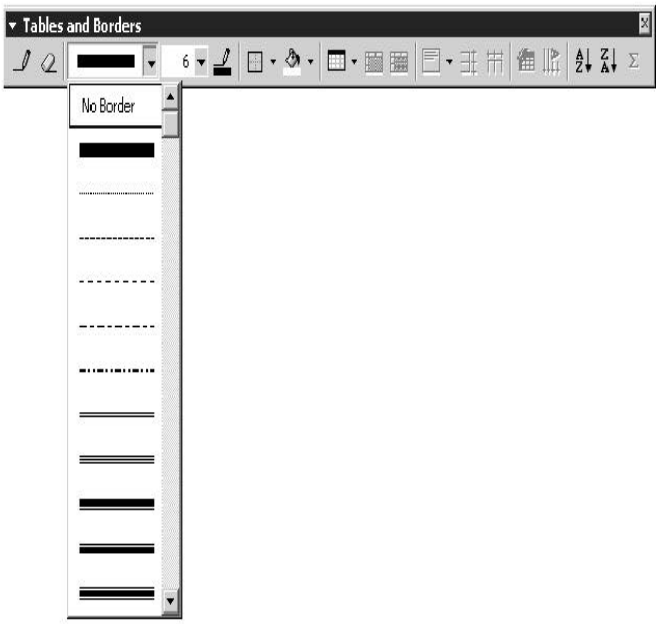
- In the Whiteboard toolbox, click the Eraser tool.
- Click a block of text or drawn object to delete it.

Tip To delete individual letters in a text block, click the Text tool in the toolbox, and then click the text. You can press DELETE OR BACKSPACE (if you want, you can select the letters first).

About borders and shading-

This topic provides reference information about:

Page borders, Text bordres and shading, table borders and shading, graphics bordres and fills,



page borders-

you can add a border to any or all sides of each page in a document, , to pages in a section, to the first page only, or to all pages except the first. You can add page borders in many line styles and colors, as well as a variety of graphical borders.

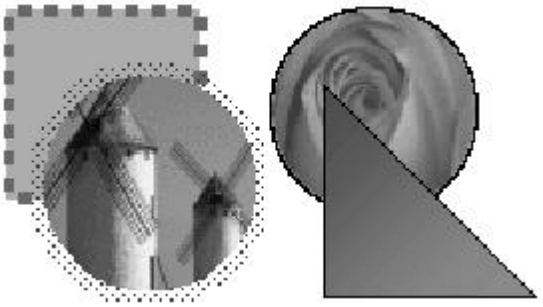
text borders and shading - you can set apart paragraphs or selected text from the rest of a document by adding borders. You can also highlight text by applying shading..

Table borders and shading –

	March	April	May
Supply	122	222	322
Demand	200	300	400

You can add bordres to a table or individual table cell, and you can use shading to fill in the background of a table. You can also use the table auto format command to quickly give a table a polished look with a variety of borders, fonts, and shading.

Graphics borders and fills –



You can add borders to drawing objects (including text boxes and auto shapes) or to pictures, and you can enhance your drawing objects by adding a gradient (shaded),patterned,textured,or picture fill..
More information: change a border or line, remove a border, add or change shading or a fill.
Remove a border- Remove a border from a table

- Do one of the following:

To remove all borders from a table, click anywhere in the table.
To remove borders from specific cells, select the cells, including the end-of-cell marks.

- On the Format menu, click Borders and Shading, and then click the Borders tab.
- Under Setting, click None.

Tips

- You can quickly remove all borders and shading from a table by clicking the table, clicking Table AutoFormat (Table menu), and then clicking None in the Formats box.
- You can also quickly remove borders from parts of a table. On the Tables and Borders toolbar, click the arrow next to Line Style, click No Border, and then drag over the existing borders you want to

Remove a border from text

- Do one of the following:

To remove a paragraph border, click anywhere in the paragraph.
To remove a border around specific text, such as a word, select the text.

- On the Format menu, click Borders and Shading, and then click the Borders tab.
- Under Setting, click None.

Remove a border from a page in a document

- On the Format menu, click Borders and Shading, and then click the Page Border tab.
- Under Setting, click None.

Note To remove the border from only one edge of the document — for example, to remove all but the top border — click the borders you want to remove in the diagram under Preview.

Insert =

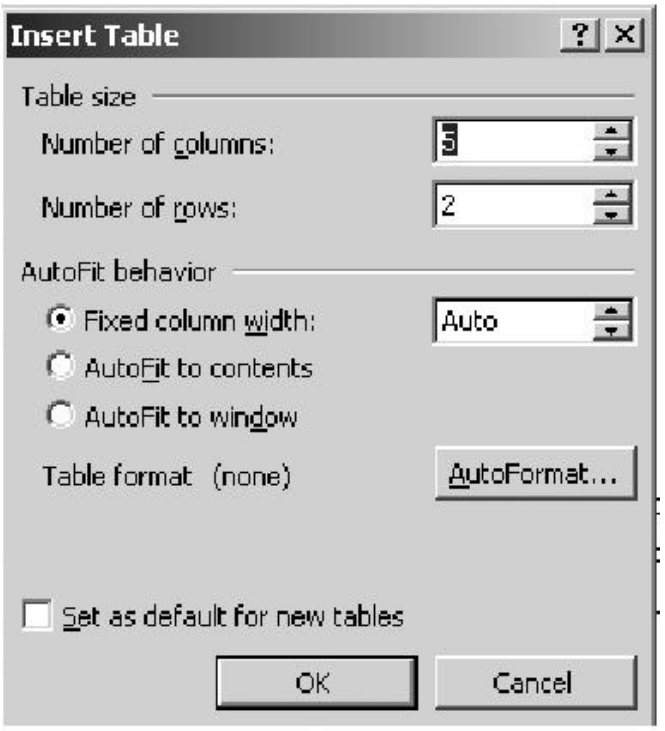
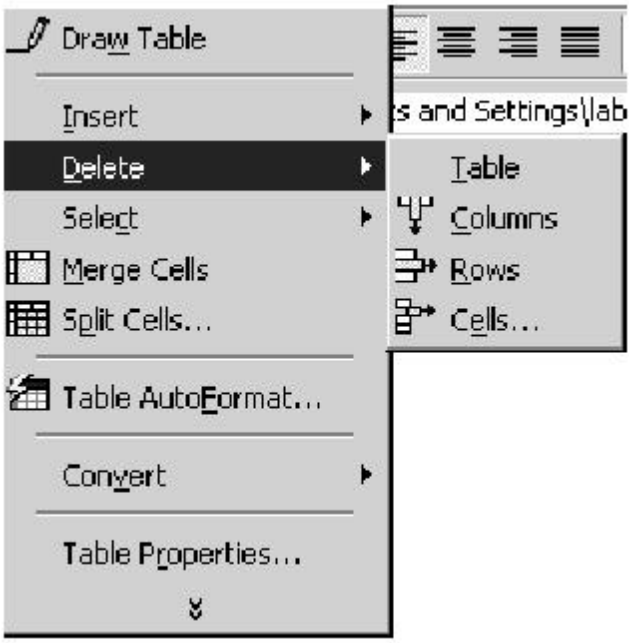


Table size- Select the number of rows and columns you want in your table.
Enter the number of rows you want in your table.
Auto fit behavior- Choose the option you want for sizing columns in the table. Choose fixed column width if you want the columns to always be a specific size in inches or if you want the columns to be of equal size between the page margins. Choose AutoFit to contents if you want Word to automatically adjust the column width based on the amount of text it contains. Choose AutoFit to window if the table will be viewed in a web browser and you want it to automatically resize so that it always fits inside the window of the browser.
Automatically applies predefined formats to your table, including borders and shading.
Automatically adjusts the width of columns in the table based on the amount of text you type.
Automatically resizes the table so that it fits within the window of a web browser. When the window size of the web browser changes, the table size automatically adjusts to fit within the window.

Delete =



Delete a table or delete items from a table- You can delete individual or multiple cells, rows, or columns, or you can delete an entire table. You can also clear the contents of cells without deleting the cells themselves.
What do you want to do?
Delete a table and its content

- Click the table.
- On the Table menu, point to Delete, and then click Table.

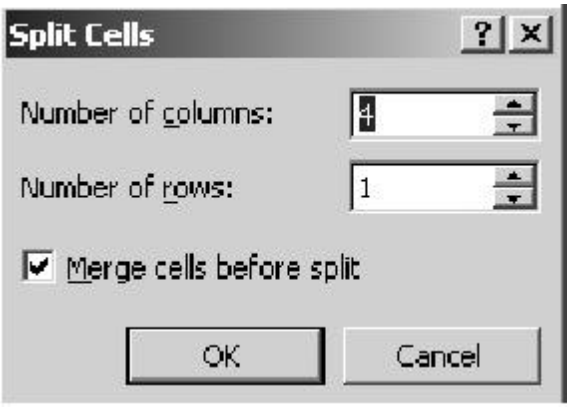
Delete cells,rows, ro columns from a table

- select the column, rows or cells you want to delete.
- On the Table menu, point to Delete, and then click either Columns, Rows, or Cells.
- If you are deleting cells, click the option you want.

Clear the contents of a table

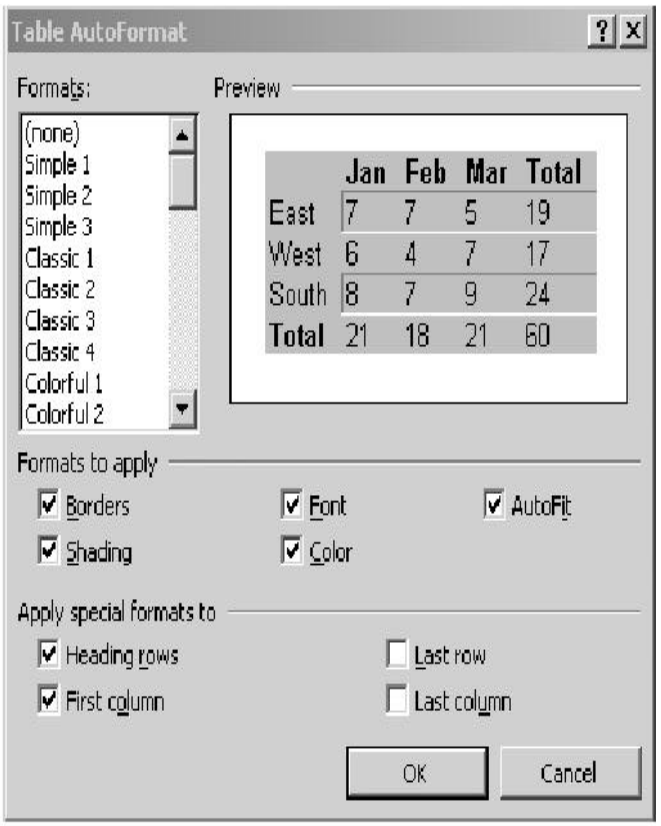
- Select the items you want to clear.
- Press DELETE.

Split cells =



This helps to the contents into cells (in columns and rows).

Table auto format =

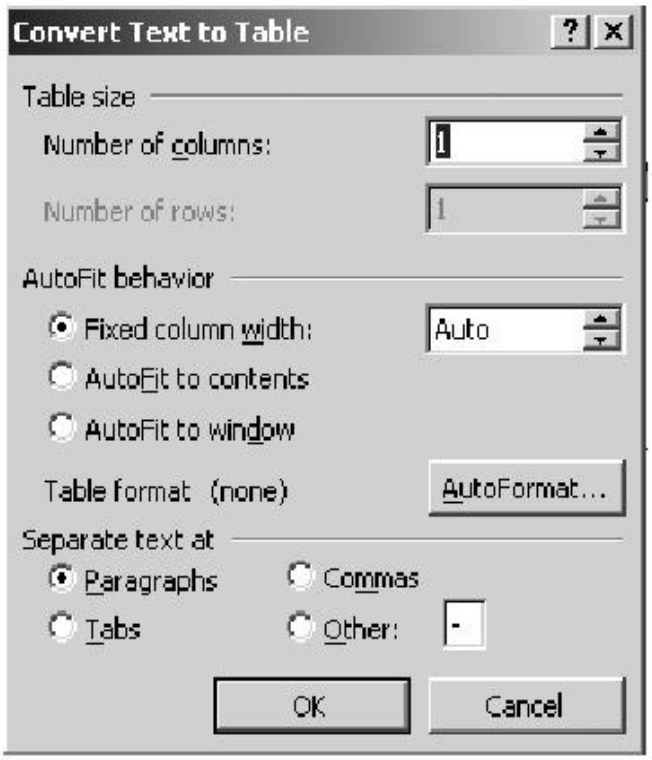


Click the type of border and shading you want. To remove borders and shading, click None.
Shows how your document will look with the selected options. Applies the border formatting specified by the selected design in the Formats box.Applies the shading formatting specified by the selected design in the Formats box. Applies the font formatting specified by the selected design in the Formats box. Applies the color formatting specified by the selected design in the Formats box.
Select the formats you want Word to apply to the table. Select the parts of a table that you want Word to format with the specified formatting.
Some of the previews are:

	Jan	Feb	Mar	Total
East	7	7	5	19
West	6	4	7	17
South	8	7	9	24
Total	21	18	21	60

	Jan	Feb	Mar	Total
East	7	7	5	19
West	6	4	7	17
South	8	7	9	24
Total	21	18	21	60

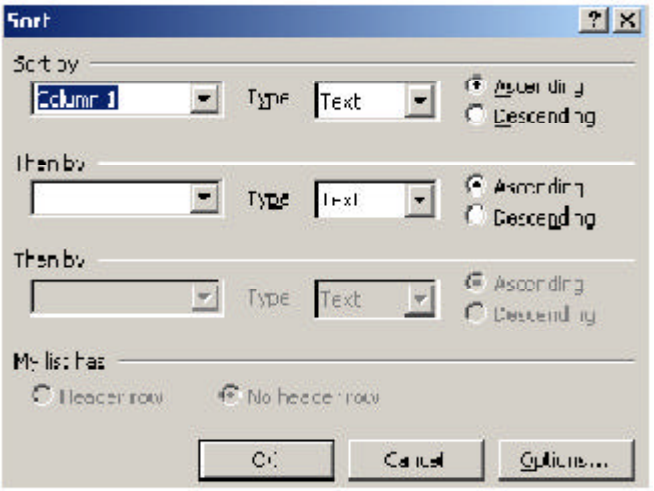
Convert =



Select the number of rows and columns you want in your table.
Choose the option you want for sizing columns in the table.
Choose Fixed column width if you want the columns to always be a specific size in inches or if you want the columns to be of equal size between the page margins. Choose AutoFit to contents if you want Word to automatically adjust the column width based on the amount of text it contains.
Choose AutoFit to window if the table will be viewed in a web browser and you want it to automatically resize so that it always fits inside the window of the browser.
Choose this option if you want the columns to always be a specific size in inches. Type or click the column width you want.
Click Auto to insert columns of equal size between the document margins.
Automatically adjusts the width of columns in the table based on the amount of text you type.
Displays the predefined format selected in the Table AutoFormat dialog box.
Converts text to a table, using the character you click as a column marker.
Converts text to a table, using the character you click as a column marker.

Click the character you want Word to use as a delimiter in place of each column marker.
Converts the selected table to text, with each cell converted to a separate text paragraph.
Converts the selected table to text, with each column marker converted to a comma.
Converts the selected table to text, with each column marker converted to a tab.

Sort =



Sorting in a table: Click the column you want as the basis for sorting the rows in your table.
Sorting paragraphs: Click Paragraphs to reorder paragraphs based on the first word of each paragraph. Click Field 1 to sort by the first field in each paragraph. Click the type of data you want to sort. Sorts from the beginning of the alphabet, the lowest number, or the earliest date. Sorts from the beginning of the alphabet, the lowest number, or the earliest date. Click a column if you want to specify more than one column as the basis for sorting. Click (none) to cancel the secondary sorting criteria. Click No header row to sort all rows in the list, including the first row. Click Header row to exclude the first row from being sorted with the list. These options are unavailable if the current selection is a Wordtable. Excludes the first row from being sorted with the list. If you use the Numbering command (Format menu) to format multiple rows as header rows, Word

skips those rows when sorting. Sorts all rows in the list, including the first row.

Table properties =

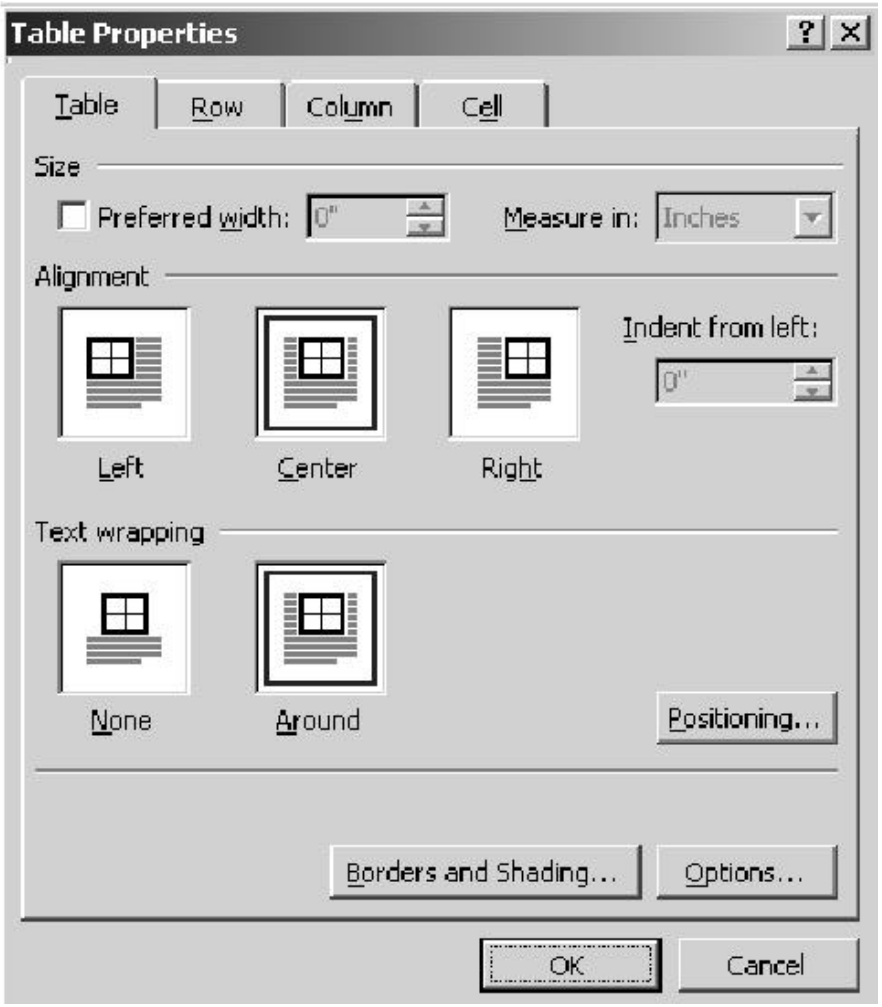
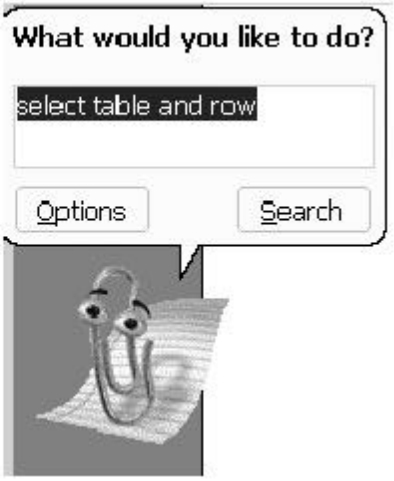


Table - The current measurements of the table are displayed below. To change the width of the table, click Preferred width and then select the width you want. Click the Measure in list to set the table width in a fixed measurement (such as inches) or as a percentage of the page width (or screen width, if you're working in Web layout view).
Click this check box and then type or choose the table width you want. Click the Measure in list to change the table width from a fixed measurement (such as inches) to a percentage of the page width (or screen width, if you're working in Web layout view).
Sets the horizontal and vertical position of the table, distance from surrounding text, and other options. This button is unavailable unless you choose to wrap text around the table.
Sets border styles, colors, widths, shading, patterns, and other options for the table.
Sets default cell margins, spacing between cells, options for breaking the table across a page, and automatically sizing columns to fit text as you type.
Row - Tells you which row is currently selected in the table. The current measurements of the row are displayed below. To change the row height, click Specify height and then select the height you want. Changes the row height. Type or select the row height you want. Allows the text in a table row to split across a page break. Designates the selected rows to be a table heading that is repeated on subsequent pages if the table spans more than one page. This option is available only if the selected rows include the top row of a table.
Column - Tells you which column is currently selected in the table. The current measurements of the column are displayed below. To change the width of the column, click Preferred width and then select the width you want. Click the Measure in list to set the column width in a fixed measurement (such as inches) or as a percentage of the whole table.
Cell - Click this check box and then type or choose the width you want for the selected cell. Click the Measure in list to change the cell width to a fixed measurement (such as inches) or a percentage of the whole table. Adds text to the top of the cell. Text moves towards the bottom of the cell as new text is added. Adds text to the center of the cell. Text moves towards the cell's top and bottom edges as new text is added. Adds text at the bottom of the cell. Text moves toward the top of

the cell as new text is added. Sets cell margin, text wrapping, and automatic fit text options for the selected cell.

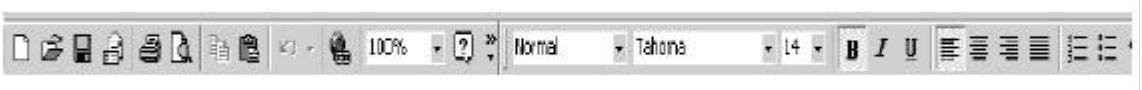
Help:



this command helps to solve our problems in ms word, any question raises that we can get it.

This bar indicates the length of the page or document. and we can move this bar left and right. and same bar we have at the right side of the page ,that is vertical.

Now look at these short cut commands in bar:



= this helps to open a new document.

= this will help to open the open the menu bar containing all the fields from where we open the document.

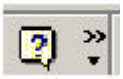
This will open the save as box in which we can save our document as requirement.

this is the print command.

= this is used to preview the page as print view.

this is for redo and undo commands.

this is used to view the page as 100%,200%etc


this is the ms word help command.

= this is used to have heading in different types.

this command is used for the font style.

this is used for making the the text bold.

= this is used to make the text in italics form.

= this is used to under line the text materials.

= if we want to move our document to the left side of the page.

= if we want to have the document in the center then this command is used.

= if we want our text to be to the right side of the page then we will use this command.

= if we want our document propionately spread from left to right, then this command is used.

= this is used for numbering.

= this is a another type of numbering.

At the top-right of the screen we have this bar , this is used for minimize, maximize, and close simultaneously.

At the top-left of the screen we have this

bar depicting the document we are working.

Introduction

Welcome to *CorelDraw 1*0 for Windows: Visual Quick Start Guide.

Our purpose in writing this book is to share our collective experience as design and com-puter professionals. In keeping with the *Visual Quick Start Guide* format, the material is pro-fusely illustrated, presented in easy to follow step-by-step fashion, and designed to take the mystery out of graphic design with CorelDraw.

CorelDraw 10 offers a complete set of tools for creating many kinds of drawings and multi- page documents-from birthday cards, logos, brochures, and newsletters to garden designs and World Wide Web pages. CorelDraw has incredible power and loads of features, all incorporated into a sophisticated interface. And yet the program is still easy to use. With CorelDraw 10 and your imagination, the sky is the limit!

If you're new to CorelDraw 10, the program may seem complex at first because it is so rich in features. But if you take it one step at a time, you'll soon be creating impressive draw-ings. For those of you who are acquainted with previous versions of CorelDraw, you can use this book as a guide to the new features and techniques, as well as a handy reference.

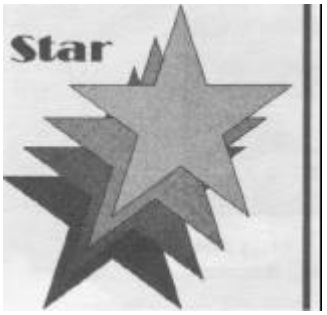
Notes

LESSON 2
THE BASICS

CorelDraw 10 in a Nutshell

CorelDraw documents are made up of sepa-rate elements called *objects* .

An object's edge is called a *path.* Paths can be *closed* or *open.* An object with a closed path can be filled with color; whereas an object with an open path cannot. The path' of an object passes through *nodes* that shape the path.



This simple drawing is composed of five separate objects: four colored stars and a text string.

Some CorelDraw tools automatically create closed path objects. The Ellipse Tool makes various sized ovals and circles; the Rectangle Tool makes rectangles and squares. and the Polygon Tool makes polygons with three or more sides. Other tools create closed or open path objects. depending on how they are used. The Freehand

Tool can be used to draw a line (an open path) or a squiggly circle (a closed path). The Bezier Tool can be used to draw smooth curving lines or closed. Curvy shapes.

If you want to modify an object, you must first *select* it. When an object is selected, *handles* appear in a rectangular formation around it

Objects can be modified using a variety of program features. such as menu commands. dialog boxes, Dockers. and tools. For instance, an object's path can be shaped by moving its nodes and control points with the Shape Tool. An object can be uniformly filled with a spot or process color with one click in the color palette. Objects can be filled with patterns. textures, and fountain fills with the Interac-tive Fill Tool. Objects can be rotated. skewed. scaled. and mirrored with the-Pick Tool. With the Interactive Blend Tool. you can blend one object into another-creating a morph

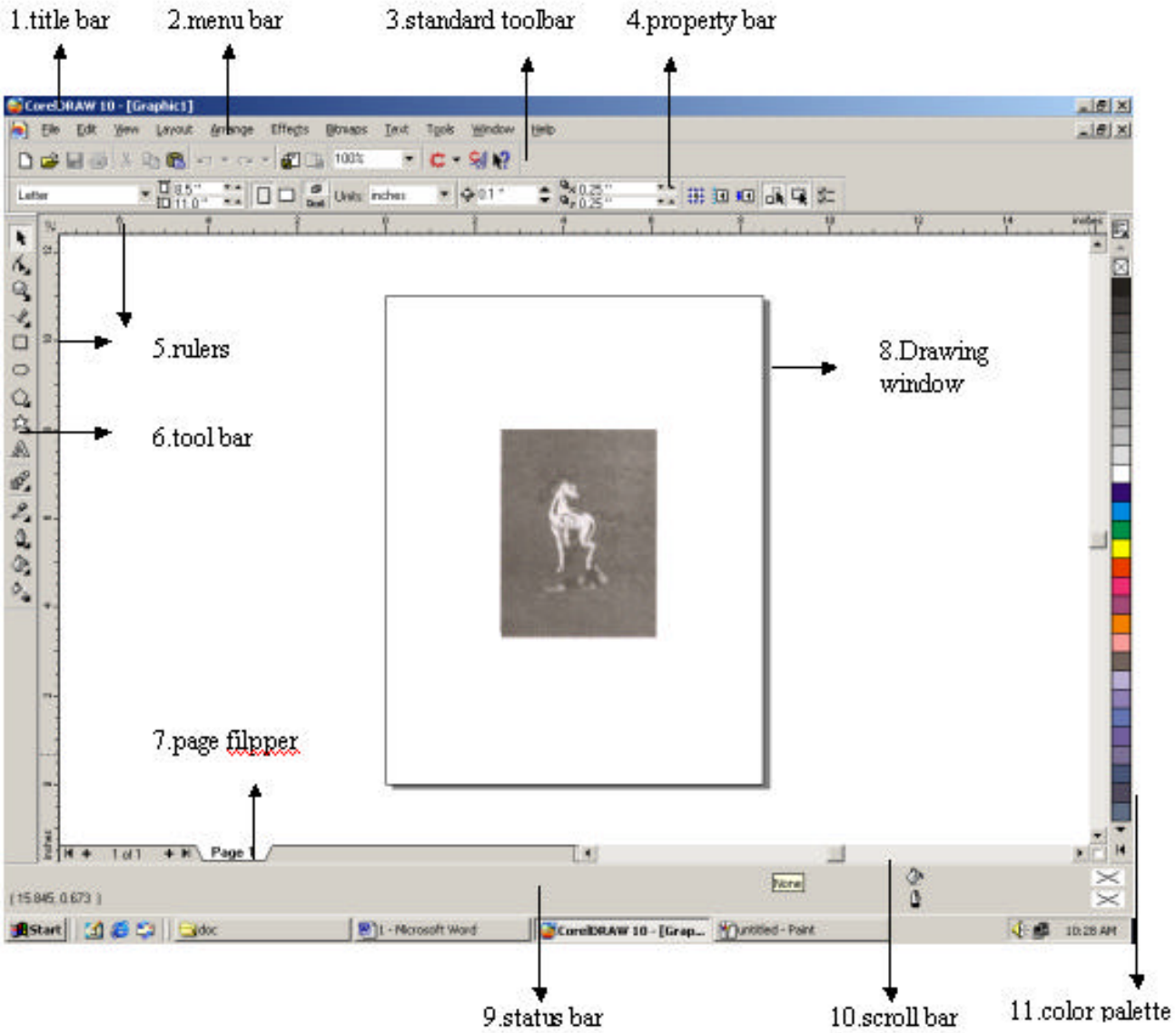
CorelDraw lets you be creative with text. Text can be artistic or paragraph. It can float free on the page as a *text object.* Follow the path of an object. or use an object as a container to Shape it. Text can also be converted to curves. Changing it into a graphic object whose outline can be modified like any other outline.

Notes

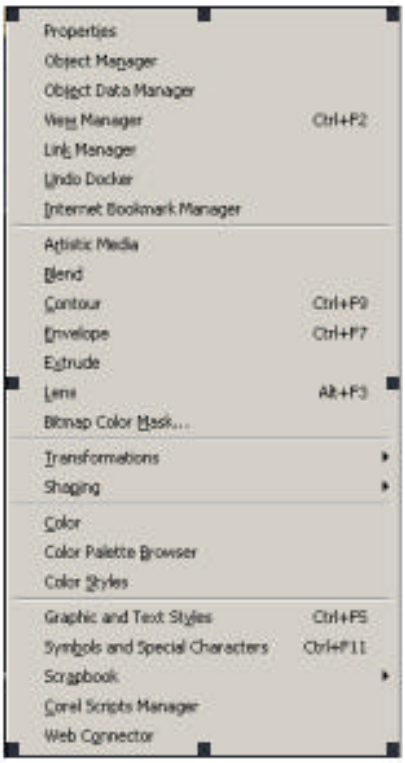
The CorelDraw 10 Interface

A programs *interface* refers to the way it looks and to the controls, dialog boxes. and other components that enable you to interact with it. shows the important parts of the CorelDraw 10 interface.

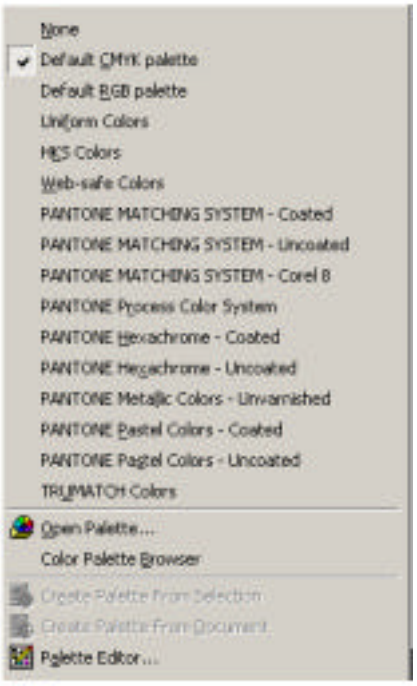
- Title bar. Displays the program name and name/location of the active document.
- Menu bar. Click any menu title (such as File or Edit) to choose commands.
- Standard tool bar. One of twelve com-mand bars. The Standard tool bar's icons Provide quick access to common Windows commands, such as New, Open, Save, and print. It also includes CorelDraw commands, such as Import, Export, and Zoom.



- Property bar. This context-sensitive tool-bar has icons and drop-down lists that change dynamically. Depending on what is selected. This gives you access to the most important commands associated with the selected tool or object.
- Rulers. The mouse pointer's current posi-tion is indicated by dotted marks on the vertical and horizontal rulers. Rulers can be moved to where you need them and used to accurately size objects. Double-click either ruler to alter the measurement unit or other ruler properties.



To display a docker. choose it
from the Window> Dockers submenu.



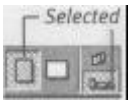
To add or remove a color palette,
choose it from the Window> Color Palettes
Checked palettes are displayed.

- toolbox. The toolbox contains drawing and editing tools. You can drag it onto the drawing window (making it float) or dock it along any edge of the screen (as shown). Click the down-arrow onany icon to display a *flyout* menu of related icons.
- Drawing .Window (A) and Page Border (B). Draw anywhere you want in the draw-ing window, but anything drawn outside of the page border will not be printed.
- Dockers. Each docker is related to a specific command or purpose. such as setting object properties, extrud-ing. scaling, or contouring.
- Guidelines. Use these non-printing. user-placed horizontal. vertical. or slanted guides to align objects.Click and drag from either ruler to create a horizontal or vertical guideline.
- Page Flipper .(A) and Page Tabs (B).Use the page flipper to add pages to a doc-ument. switch to another page, or move to the beginning or end of a document. Click any page tab to switch to that page.
- Status Bar. The status bar shows the posi-tion of the mouse pointer, lists keyboard shortcuts. and displays object information. such as size, position. and fill color.
- Scroll Bars. Use the scroll bars to navi-gate around the drawing window. If you click the down arrow on the vertical scroll bar. the drawing page will move up. If you click the right arrow on the horizontal scroll bat the page will move to the left.

CorelDraw 10 Controls

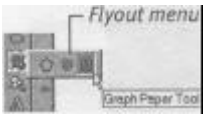
Dialog boxes and toolbars contain many types of controls that you'll use to set options, make choices, and so on. Here are some of the most common controls you'll encounter:

- Icons. CorelDraw makes extensive use of. tiny icons, as shown in . A selected icon is shown as depressed; an unselected icon is raised. To select an icon (whether it is a single icon or in a set of icons), click it.



Here are two pairs of icons; each is a set. The depressed one in each set is selected

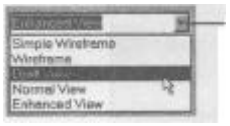
- Flyouts. A flyout is a pop-out icon menu. When you click the tiny down-arrow on any toolbox icon and con, tinue to



hold down the mouse button, a flyout menu appears. Click to select an icon from the flyout.

To see the flyout menu for any tool-box icon, click the tiny down-arrow

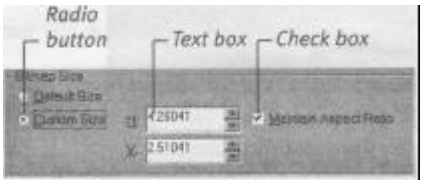
- Drop-down lists. Drop-down lists present a selection of items from which to choose. To open the list, click the tiny



arrow tothe right of the list box. Some drop-down lists allow you to enter text if you don't see a choice you like.

This is an example of a drop-down list.

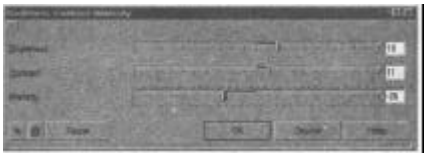
- Text boxes. Every text box is designed to receive either a number or a text string. Those with up and down arrows to the right are meant for numbers. To enter data into a text



box, you can type it OJ; select a number by clicking the arrows.

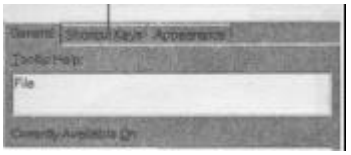
This dialog box section employs radio buttons, text boxes, and a check box as controls.

- Radio buttons. Use radio buttons to select a single option from a set. Click any radio button to select that option; the selected option is denoted by a black circle.
- Check boxes. Click a check box to turn an option on or off. A check-mark indicates that the option is on or enabled. Unlike radio buttons, you can normally select ultiple check boxes
- Sliders. You drag sliders to increase or decrease a setting.



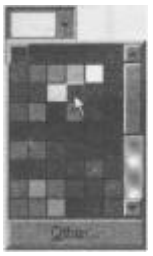
You can adjust this style of slider by clicking and dragging the bar or by typing numbers into the text boxes to the right.

- Tabs. Tabs can be seen in the page flipper at the bottom of the CorelDraw window and in some dialog boxes . If you click a tab in the page flipper. the document page represented by the tab is displayed. Clicking a tab in a dialog box displays the options that are associated with the tab's name.



To view other sections of a tabbed dialog box. click a tab.

- Drop-down palettes. Rather than a pre-senting a list. clicking some drop-down buttons displays a graphics palette . Make a selection by clicking a color or other graphic item. Click the Other button to view additional choices.



This drop-down color palette is a variant of a drop-down list. presenting a palette of colors to choose from rather than words.

- Tree views. In a tree view. options are presented in a hierarchical list. Depending on the list's format. after expanding an item. you can select it (to choose a cat-egory from the Options dialog box, for example) or enter a checkmark in a check box .

Working with Menus

The menu bar has 11 menus. Menus provide access to program commands, submenus. and dialog boxes.

The CorelDraw menu bar displays menus.

To choose a command from a menu:

- Click a menu title.The menu opens

- ‘Move the mouse down to highlight the item you want. A tiny arrow to the right of a command means that it contains a submenu. To open a submenu.
  Click the arrow.
- Click to select the desired command.

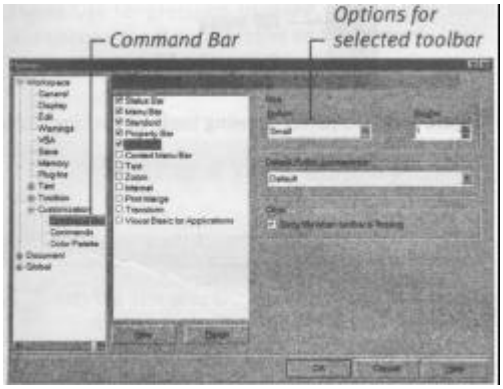
Working with Toolbars

There are a dozen toolbars in CorelDraw 10. They provide easy access to common com-mands and dialog boxes. Three toolbars are available by default when you first launch the program: the Standard toolbar, the property bar, and the toolbox.

All toolbars can be docked or floating. A *docked* toolbar is locked into position on an edge of the screen; a *floating* toolbar can be freely positioned anywhere on screen. The toolbox is an example of a docked toolbar. To dock a floating toolbar, drag it to any edge of the screen: top, bottom, left, or right.

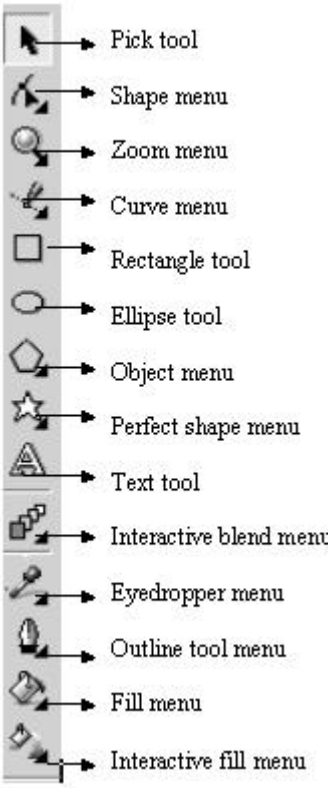
To add or remove toolbars:

- Choose Windo,v > Toolbars > More Toolbars. The Options dialog appears with the Cus-tomize heading selected.
- Click the Command Bars heading in the left side of the dialog box. The Command Bars section opens .



You can add or remove toolbars. as well as set options for them, in the Command Bar section of the Options dialog box.

- In the toolbars list, click the check boxes next to the toolbars you want to display. Remove checkmarks from the toolbars you want to hide.
- *Optional:* You can set display and behavior settings for any toolbar by selecting its name and then choosing options. (To restore a toolbar’s default behavior, select its name and click the Reset button.)
- Click OK



The toolbox

The toolbox contains dozens of tools for creating. formatting. and editing objects. Each of the currently visible tools in the toolbox can be selected by simply clicking them. However. many are actually a group of related tools. To select any of the other tools in a group. click and hold the tiny black arrow in the corner of the tool icon.

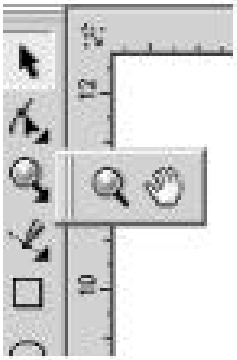
The property bar:

The property bar . Normally found beneath the Standard toolbar near the top of the screen, is a context-sensitive com-mand bar. Depending on the tool or object that is selected, it displays different icons and options. For example, when you select the Zoom Tool, the property bar contains only zoom-related controls and icons.

The status bar

The status bar is your guide to what's happening in the drawing window. It gives you information about the position of the pointer and the properties of the selected object, such as its shape, size, and fill and outline colors. The status bar can be one or two line high. You can change its size by
right-clicking the status bar and-from the pop-up menu that appears-choosing Cus-tomize > Status Bar:> Size, followed by One Line or Two Lines.

Using the Zoom Tool



Select the Zoom Tool from the toolbox

You use the Zoom Tool to magnify or reduce your view of a drawing. You can *zoom* in to see detail or *zoom out* to view the entire drawing. The property bar works in concert with the Zoom Tool. When the Zoom Tool is selected, the property bar displays zoom-related icons.

To zoom in (magnify):

- Select the Zoom Tool from the toolbox .
- Left-click the area *you* want to magnify.

The magnification will double.

To zoom out (reduce):

- Select the Zoom Tool from the toolbox.
- Right-click the area. *you* want to reduce. *or*

Click the Zoom *Out* icon on the property bar and left-click the area *you* want to reduce.
The magnification will be halved.

For precision zooming, you can click icons and choose or set percentages on the property bar.

Working with Dockers

A *docker* is a tool palette. Unlike most dialog boxes, dockers remain onscreen after changes are applied, letting you continue to work with-out having to reopen the docker. When you aren't using a docker. you can minimize it, leaving only the name tab visible. You can also undock any docker and move it to a more convenient screen position.

Choose a docker to open from the Dockers submenu

To open a docken-

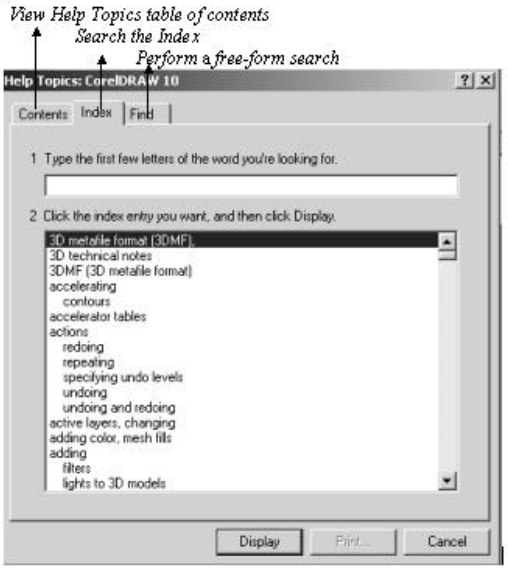
- Choose Window> Dockers. A large submenu appears.
- Choose a docker from the submenu. The chosen docker opens and is docked

To undock a docker:

- Double-click the docker's title bar
- Click the double lines at the top of the docker and drag it onto the desktop.

To minimize a docked docker, click the double arrows in its title bar. To expand a minimized docker, click its name tab.
To close a docker (whether it is docked or undocked), click its Close button

Getting Help



CorelDraw 10 includes a comprehensive help system with multiple components.

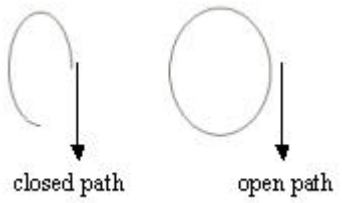
- CorelDraw 10 User Manual. This paper manual ships with CorelDraw. (It duplicates the Help Topics.)
- Help Topics. This Windows-style Help system has three sections: Contents, Index, and Find. To view on-line help, choose Help> Help Topics.
- What's This? Use this helper to get a brief description of the tools you're using ,Choose Help> What's This?, click the appropriate button on the stan-dard toolbar, or press . Then click an icon or control. (You can also right click an element and choose What's This? from the pop-up menu.)
- Corel Tutor. The browser-based Tutor gives step-by-step instructions for com-pleting tasks. Choose Help> Corel Tutor.
- What's New? Choose Help> What's New? to get an overview of the new features.
- Technical Support. If you're having trouble getting CorelDraw to work. choose Help> Technical Support. Help Topics opens to the appropriate page.
- ToolTips. Pop-up balloons appear when you rest the pointer over an icon or other CorelDraw element

Terms You Should Know

Following are some basic-yet essential terms you will need to know as you use CorelDraw 10.

Object: An object is an independent element that you can modify. Everything you draw in CorelDraw is an object.

Path: The outside perimeter of an object. Paths can either be open or closed . Paths pass through nodes.



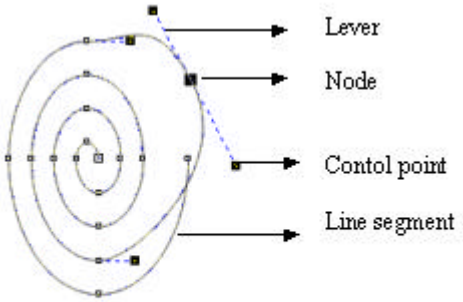
Properties: Object attributes, such as fill color, size, and shape.,

Handles: Eight black squares that appear around a selected object ; used to change an object's dimensions or shape

Handles surround any selected object.

Nodes: The squares through which paths pass ; can be manipulated with the Shape Tool.

Line segments: The portion of a path between two nodes.



Elongating a line segment of a spiral.

Control points: The handles you use to shape a line segment. Control points are attached to nodes with levers .

Select: To select objects, click them with the Pick Tool. To select nodes, click them with the Shape Tool.

Multiple: select Press Shift while clicking to select multiple objects or nodes.

Marquee: select Using the Pick or Shape Tool, left-click and drag to create a dashed rectangle surrounding (and selecting) a group of objects or nodes.

Outline: The line that represents the path. An outline can be colored or invisible.

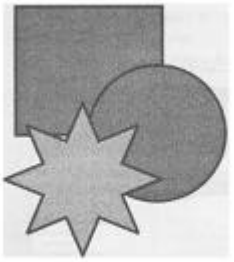
Fill: A uniform color, pattern, texture, or foun-tain fill added to the inside of an object.

Fountain fill: A gradual blend from one color to another or a cascade of different colors added to the inside of an object.

Guidelines : Use these non-printing lines to precisely position and align objects.

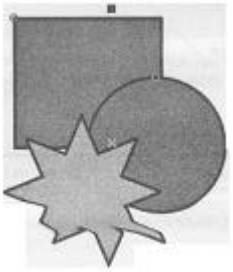
Layer: A transparent plane on which objects in a drawing are placed.

Stacking order: This is the sequence in which objects are drawn . The first object drawn is at the bottom of the stack, while the last is on top.



Three objects stacked one above the other.

Group: A set of combined objects that can be moved or modified as a single object .



When grouped, these objects can be moved and otherwise treated as a single object.

Nested group: A grouping of two or more groups that behaves as a single object.

Ungroup: Use the Ungroup command to restore a previously grouped set of objects to the original. individual objects.

LESSON 3
START– UP AND FILE HANDLING

Launching CorelDraw

Like any other Windows program, you must launch (or *run)* CorelDraw in order to create, view, or edit documents. There are several ways to do this.

To launch CorelDraw 10:

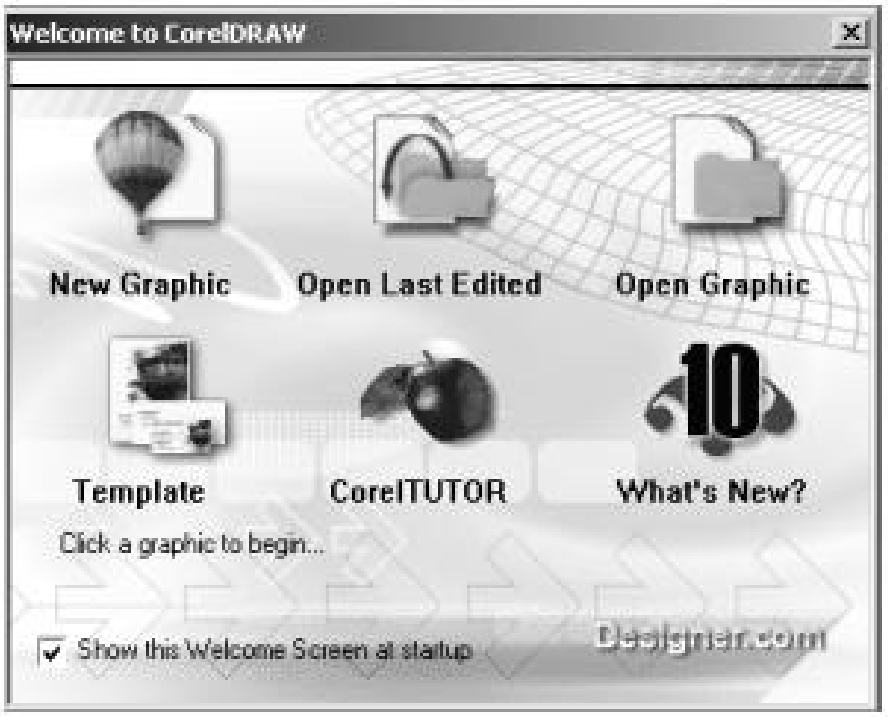
- Click the Start button on the Windows taskbar, and choose Programs> CorelDraw 10 > CorelDraw 10.
- Double-click a CorelDraw 10 shortcut that you've placed on the Windows desktop, in a folder, or in the Quick Launch toolbar . Depending on how you've configured Windows, you'll either need to double-click or click the shortcut.

You can drag your favorite shortcuts into the Quick Launch toolbar on the desktop

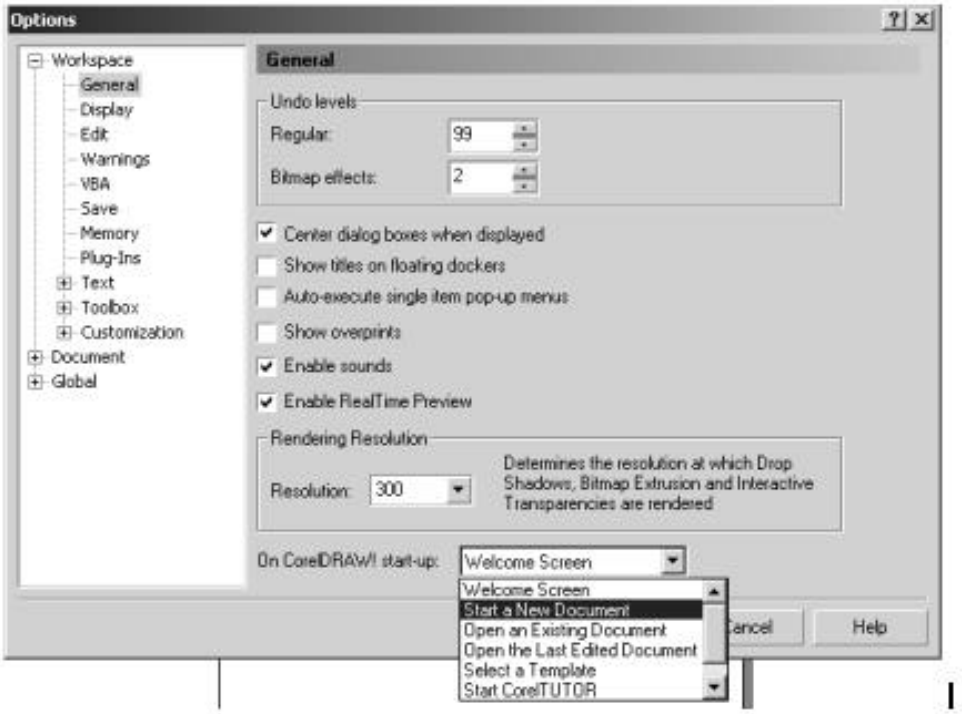
- Double-click a CorelDraw file icon or any other type of graphic file that you've asso-ciated with CorelDraw. The program runs and opens the file.

When you launch CorelDraw 10 for the first time, you will see the Welcome Screen . The Welcome Screen provides convenient access to six common commands: start a new graphic, open the last file you worked on, open an existing CorelDraw graphic, use a template as the basis fur a new graphic, run Corel Tutor, or learn about in the program's new features. Click an icon or click the close box to dismiss the Welcome Screen.

If you don't want the Welcome Screen to appear at start-up, remove the check from the check box at the bottom of the screen . In the future, CorelDraw will open to a blank screen. (This is the same as clicking the Welcome Screen's close box or choosing Noth-ing as the start-up action.) To later restore the Welcome Screen or set another start-up action, choose Tools> Options (or press ctrl j), select General, and choose an option from the pop-up list .



Select an option from the Welcome Screen

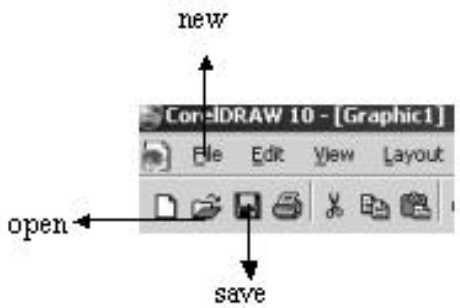


You can choose a start-up action from this pop-up list at the bottom of the Options dialog box.

You can choose a start-up action from this pop-up list at the bottom of the Options dialog box.

Creating a New Document

If you want to create a new, blank document, choose File> New, click the New toolbar icon, or press ctrl N.



By clicking a toolbar icon, you can create a new file, open an existing file, or save your changes.

A new document can also be based on a tem-plate. CorelDraw *templates* are files that help you quickly create professional-looking docu-ments, such as brochures, flyers, labels, and Web pages. Templates include settings for page size and orientation, grids, and guidelines. They often include graphics and place-holders for text. You can use the provided templates or ones that you saved as CorelDraw templates.

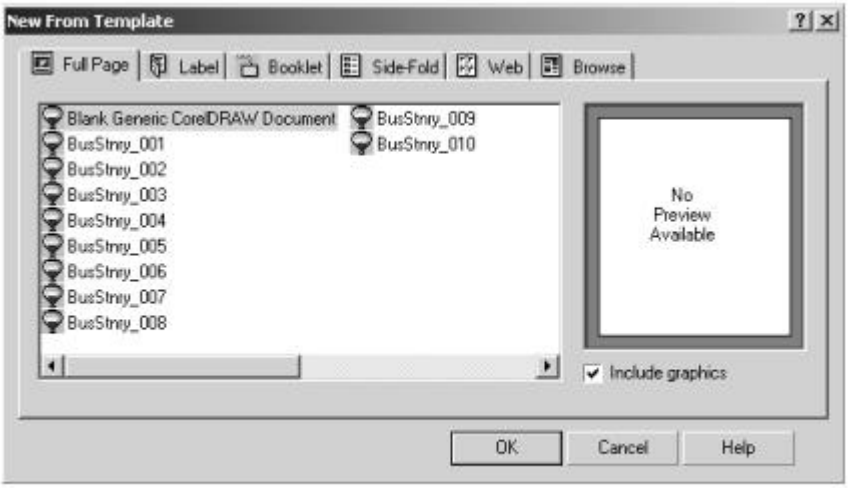
To start a new graphic from a template:

- Choose File> New From Template. The New From Template dialog box appears
- Click the tab for the type of template you like to use: Full Page, Label. Booklet, Side-Fold, or Web. CorelDraw 10 includes several dozen templates stored in the fold-ers represented by these tabs.

Or

Click the Browse tab to view templates in other folders or disks. For example, you can find others on the CorelDraw 10 CD, Disc 1 in the following folder:

\ Corel \ Graphicsl0 \ Draw \'Template



To open a CorelDraw template, select its file name and click OK.

- Select a template, using the preview pane to see what it looks like.
- Check the Include graphics checkbox to create a document that includes the dis-played design elements. (If you remove the checkmark. only the layout settings will be used.)
- Click OK

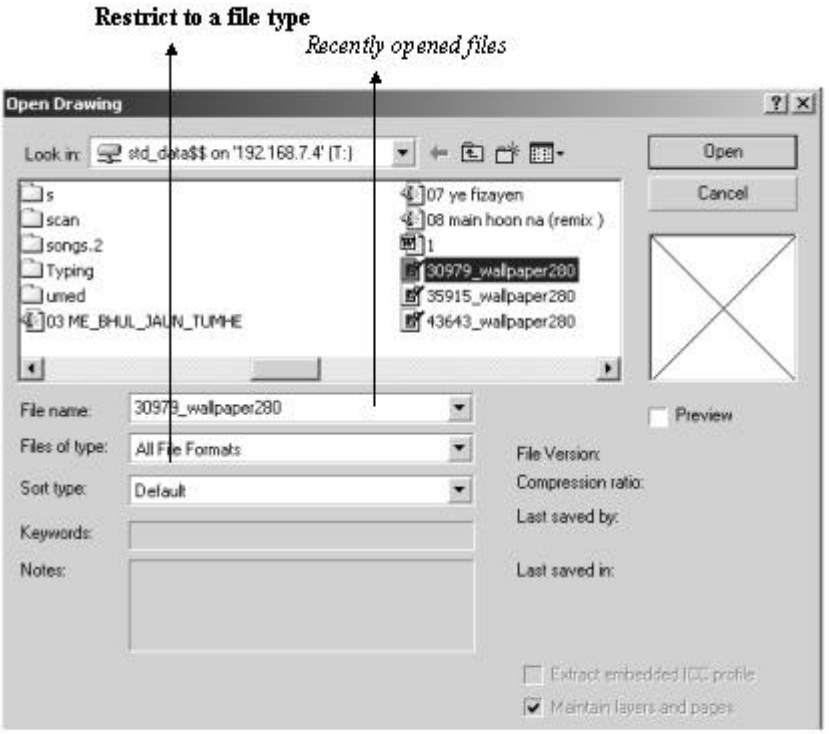
A new document is created from the tem-plate, ready for your modifications.

Opening Documents

In addition to creating new documents. you will also want to open existing drawings (in CorelDraw or other formats) to view. edit. or print them.

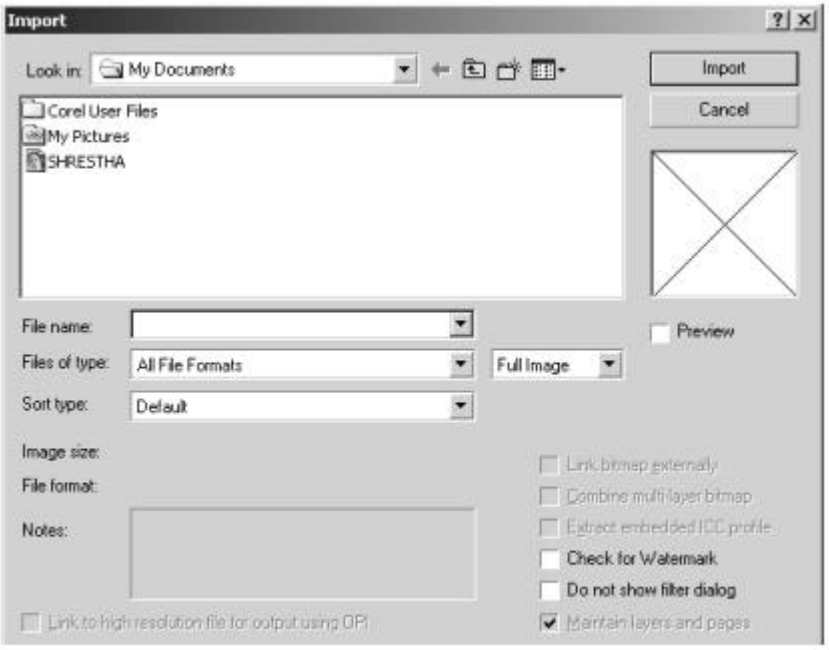
To open an existing document:

- Choose File> Open , press ctrl O or click the Open toolbar icon. The Open Drawing dialog box appears .



Select a file to open from this dialog box.

- Navigate to the folder where the document is stored.
- Select a file. and click the Open button. The drawing opens in a new window.



Select an image ortext file to import.

To import a file into a drawing:

- Choose File> Import or press. ctrl I .The Import dialog box appears
- Navigate to the folder where the file you want to import is stored and select the file. To see a preview of the image, check the Preview checkbox. Additional information about the file is displayed beneath the text boxes.
- From the pop-up list on the right, indicate whether you want to import the entire file (Full Image), a selected part of the image (Crop), or the image at a different size or resolution (Resample). If you chose Crop or Resample, another dialog box appears . Make the desired changes and click OK
- Review and set options in the bottom right area of the dialog box. (The listed options vary with the type of file you've selected.)
- Click the Open button. The file is imported into your document as a new graphic or text object.

Saving Drawings

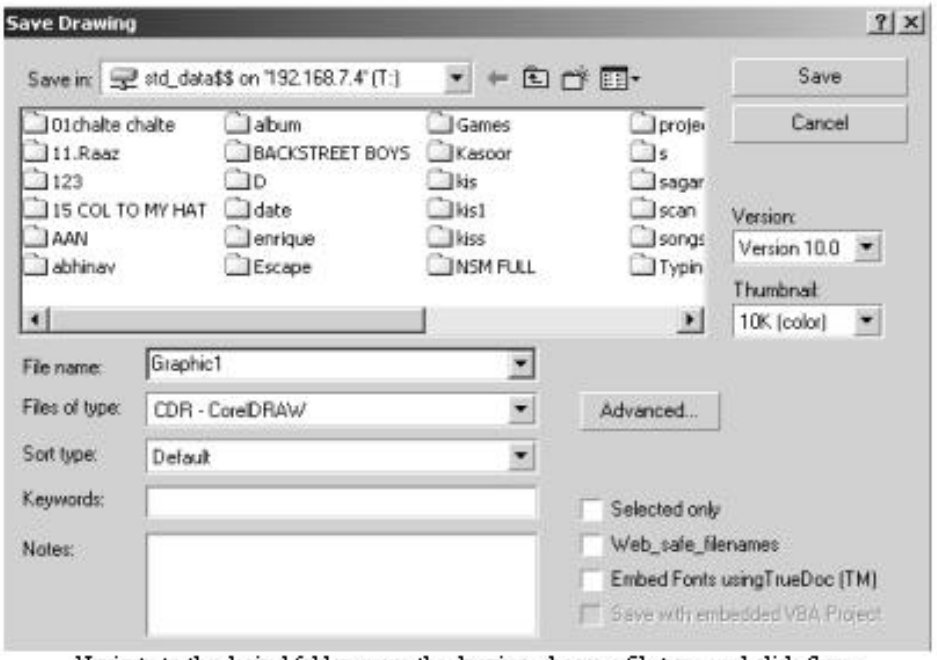
Until you've saved a newly created drawing, it only exists in the computer's memory. The same is true of edited documents. If you want edits to be permanent, you must save them.

To save a new drawing:

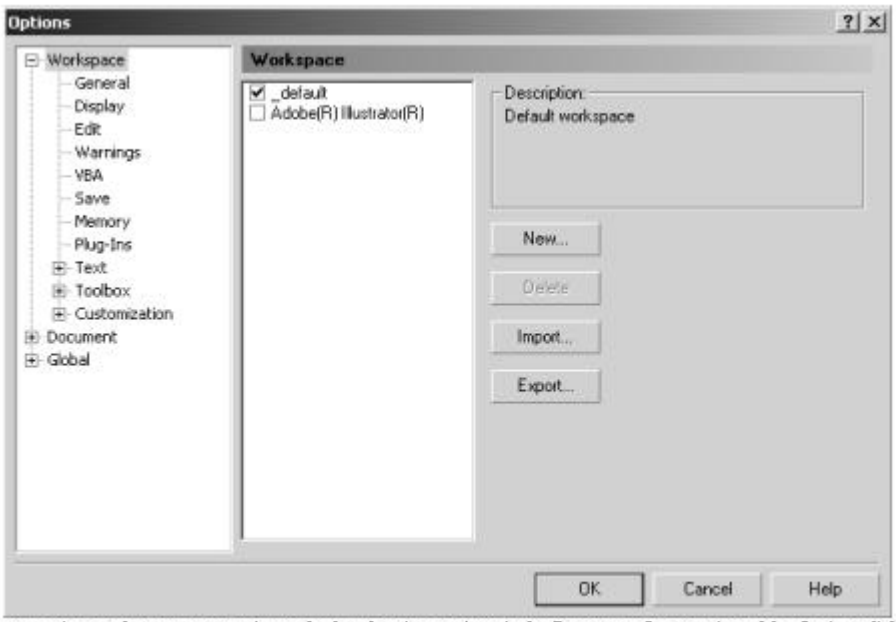
- Choose File> Save or File> Save As, press ctrl S, or click the Save toolbar icon. The Save Drawing dialog box appears .
- Navigate to the folder in which you want to save the drawing.
- Enter a name for the drawing in the File name text box.
- *Optional:* The default file type is CorelDraw (denoted by the .cdr extension). To save the Drawing in another file format, choose a format from the Files of type list.
- *Optional:* To later help identify the drawing, you can enter keywords and notes.
- *Optional:* To change file compression set-tings, click the Advanced button. The Options dialog box appears, open to the Save section . Make any necessary changes and click OK.
- Click the Save button.

To resave a previously saved drawing:

- To save the drawing using its original name, location, and file type, choose File> Save, press ctrl S , or click the Save tool-bar icon. No dialog box appears. The edited file overwrites the original file.
- To save the file with a new name, as a dif-ferent file type, or to a different location on disk, choose File> Save As. The Save Draw-ing dialog box appears . Set options as explained in the previous step list and click Save.



Navigate to the desired folder, name the drawing, choose a file type, and click Save.



You can view or change compression and other drawing settings in the Document Save section of the Options dialog box.

Closing Documents

When you're done working with a document or want to free up memory so you can open other documents, you can close any or all document windows.

Choose Yes to save the document before closing it, No to close the window without saving, or Cancel if you've changed your mind about closing.

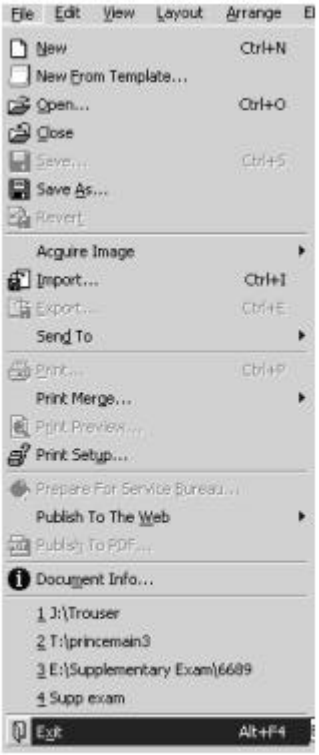
To close a document:

- Choose File> Close.
- Choose Window> Close.
- Press CTRL f4
- Click the close box in the upper-right corner of the document .

If the document you are closing hasn't been saved recently, CorelDraw will automatically ask whether you want to save it

Quitting Corel Draw

When you've finished working on your draw-ings. You can quit CorelDraw to free up memory for other applications and the system software.



To quit CorelDraw, choose File> Exit.

To quit CorelDraw, choose File> Exit.

To quit CorelDraw:

- Choose File> Exit . .
- Press alt F4

  or
- Click the close box in the upper-right corner of the main CorelDraw window.

LESSON 4
RECTANGLE AND ELLIPSES

Rectangles and Ellipses

This chapter will get you started on the road to creating fantastic graphics with CorelDraw 10. The simple shapes you'll create here are the basis for every drawing. Many complex illustrations are composed almost entirely of basic shapes, such as rectangles and ellipses. In this chapter, you'll learn how to draw rect-angles and round their corners. Then you'll draw ellipses and manipulate their properties to create pie shapes and arcs.

Everything you create using the tools in CorelDraw lO -whether it's a line. a triangle, or a circle-has a *path.* Paths can be either *open* or *closed.* The beginning and end of an open path do not connect. For example, a line is an open path. A closed path has no distinct beginning or end, just as a circle or rectangle has no beginning or end. In other words, a closed path is a *shape.*

In CorelDraw, a line or shape is also known as. an *object.* The outside perimeter of an object is a path. In addition. Every object has *properties* that you can set. These properties include such elements as the object's size, shape, and posi-tion. and color.

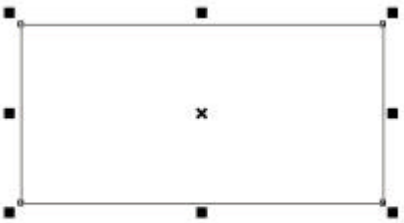
Drawing a Rectangle

A *rectangle* is a four-sided, two-dimensional figure with a right angle in each corner. A *square* is a rectangle with four sides that are the same length. With CorelDraw, you can create perfect rectangles and squares, as well as *rounded rectangles* (rectangles with rounded corners). .

Select the Rectangle Tool from the toolbox

To draw a rectangle:

- Select the Rectangle Tool icon in the toolbox or press F6. The pointer changes to a cross hair with a tiny rectangle attached to it.
- Press the left mouse button and drag di-agonally. As you drag, the rectangle takes shape.
- To complete the rectangle, release the mouse button. The rectangle will be selected, showing four nodes-one at each corner-and a set of eight outer handles . You can click and drag a handle to change the rectangle's dimensions. Nodes are dis-cussed on the next page.



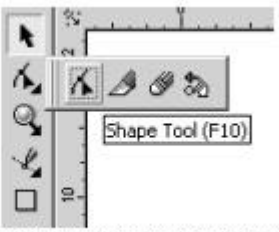
A selected rectangle has four nodes and eight handles.

Creating a Rounded Rectangle

After drawing a rectangle, you can optionally round its corners. You can round all corners at once or choose the ones you want to round. Corners can be slightly rounded to create a softening effect or very rounded, almost changing the rectangle into a circle.

To round the corners of a rectangle:

- In the toolbox, select the Shape Tool icon from the Shape Tool flyout or press F10.



Select the Shape Tool icon from the Shape Tool flyout.

- Select the rectangle you wish to round. Four black nodes appear around the rect-angle. Unselected nodes-if any-are displayed as circles.

When selected with the Shape Tool, a rectangle initially has four nodes-one in each corner.

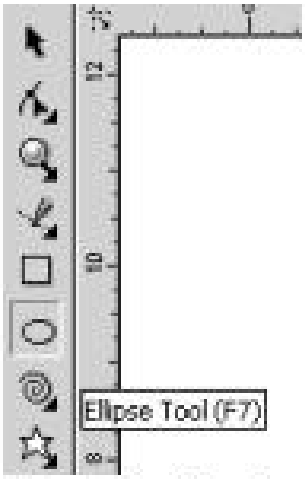
- To set the same rounding for all corners ,, make sure that all nodes are selected (black) and then drag any node.

After creating a rectangle with four equally-rounded corners, the number of nodes doubles to eight.

To set the rounding for individual corners, click to select a node (or Shift –click to select multiple nodes) and then drag any selected node.

Working with Ellipses

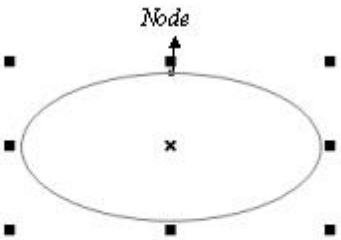
Using the Ellipse Tool. you can create ovals, circles, arcs, and pies, as described in the fol-lowing sections.



Select the Ellipse Tool from the toolbox.

To draw a closed oval or circle:

- Select the Ellipse Tool icon from the tool-box or press f7. The pointer changes to a cross-hair with a tiny ellipse attached to it.
- Press the left mouse button and drag di-agonally. As you drag, the ellipse takes shape.
- To complete the ellipse, release the mouse button.The ellipse will be selected, displaying a single node at its top and eight handles .



A selected ellipse has one node at its top and eight outer handles.

On the property bar, you can change a selected ellipse into a pie or arc, enter a specific starting or ending angle, or reverse the visible angle.

Creating an arc or pie shape

After you've drawn an ellipse, you can change it into an arc or pie shape.

An arc (left) is an open shape, while a pie (right) is a closed shape.

To change an ellipse into an arc or pie:

- In the toolbox, select the Shape Tool or the Pick Tool.
- Click to select the ellipse (if it isn't already selected).
- To change the ellipse into a pie shape, click the Pie icon on the property bar The ellipse becomes a pie,

or

To change the ellipse into an arc, click the Arc icon on the property bar.

LESSON 5
SELECT ,MOVE, COPY, AND SIZE

SELECT, MOVE, COPY, AND SIZE

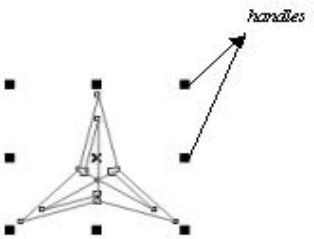
In this Chapter, you learned to draw simple shapes. Now it's time *to* learn to select. move, copy. clone. and resize objects. *You* will use the Pick Tool to accomplish these tasks.

Selecting Objects

Before you can change the size, fill, or other properties of an object, you must first *select* it. You use the Pick Tool to select objects and to manipulate an object's handles. *Handles* are the black squares that appear around a selected object. They are used to change the dimensions of an object.

To select an object:

- Select the Pick Tool from the toolbox.
- Click the object you wish to select. Eight black handles appear around the object to show that it is selected .

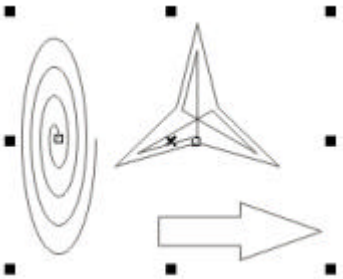


Handles appear around an object when it is selected.

To select multiple objects by clicking:

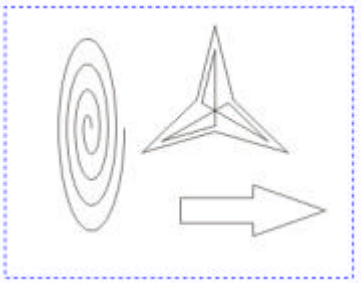
- Select the Pick Tool from the toolbox.
- Hold down ***shift*** while clicking each object you want to select.

As you select additional objects, the set of handles expands to surround all selected objects .



When you select multiple objects, the handle formation expands to surround all selected objects

To select multiple objects by dragging:



As you drag to select multiple objects, a marquee appears around them.

- Using the Pick Tool, click near-but out-side of-the objects you wish to select.
- Drag to select the objects.As you drag, a dashed blue rectangle (or *marquee)* appears, showing the selection area.
- Release the mouse button when the mar-quee encompasses the objects.

The items will be selected as a group with a single set of handles.

To select all objects on a page:

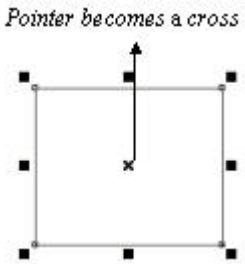
- Choose Edit> Select All > Objects.
- Press ctrlA.
- Double-click the Pick Tool's toolbox icon.

Moving Objects

CorelDraw 10 provides three ways for you to reposition objects: dragging, *nudging* (pressing the arrow keys), or entering different page coordinates.

To move an object by dragging:

- With the Pick Tool selected, click anywhere Within the object and drag it to its new location. (When using the Pick Tool, it isn't necessary to select the object before you start dragging.)



When dragging with any tool other than the Pick Tool, you must position the pointer over the *x* in the object's center and then drag.

- With another tool selected (such as the Rectangle Tool), click to select the object and then-with the pointer over the *x* in the center of the object click and drag it to its new location.

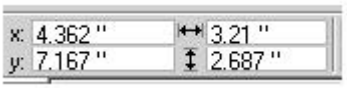
To move an object by nudging:

- Select the object with the Pick Tool or another tool.
- Press to move the object the preset nudge distance.

To move the object *afraction* of the nudge distance, press I Ctrll in combination with an arrow key.
To move the object a *multiple* ofthe nudge distance. press IShiftl in com-bination with an arrow key.

To move an object using coordinates:

- Select the object with the Pick Tool or another tool.



To precisely position an *object*, enter X and Y coordinates in these two boxes on the property bar.

- On the property bar (Figure 4.6). enter values for the X (horizontal) and/or Y (vertical) coordinates. The values refer to the object's center.
- Press ENTER

Copying Objects

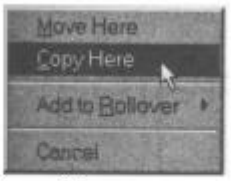
There are two ways to copy an object: *copy* it to the Windows Clipboard (and then paste it
into the document) or *duplicate* it. The result is the same, but the amount of computing power used for the two procedures is different.
If you copy an object to the Clipboard. you can then paste it into the current page or other pages in your CorelDraw document. It will also be available for pasting into other Windows programs. For example. you could paste a rectangle or star copied from CorelDraw into a Microsoft Word document. However, copying and pasting an object-especially a complex one-can tie up your computer.
CorelDraw's Duplicate command by passes the Clipboard, making it a faster operation. In addition, you can specify exactly where the duplicate will appear in relation to the origi-nal. Whereas a copy will always appear on top of the original.

To copy an object using the Clipboard:

- Select the object you want to copy.
- Choose Edit> Copy or press ctrl C.The object is copied to the Clipboard.
- Choose Edit> Paste or press ctrl V.A copy of the object appears. directly on top of the original.
- Drag the copy to the desired position.

To copy an object by dragging:

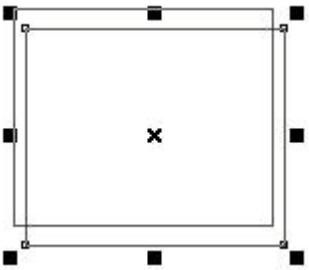
- Using the Pick Tool (or another tool). right-click the object you want to copy and drag it to the desired position.
- Release the mouse button.
- Choose Copy Here from the pop-up menu that appears



Choose Copy Here to create the copy.

To duplicate an object:

- Select the object to be duplicated.



A duplicate is automatically offset from the original and selected.

- Choose Edit> Duplicate or press ctrl D. the duplicate appears slightly to the right and above the original .

Smart duplication helps you create a series of evenly spaced duplicate objects

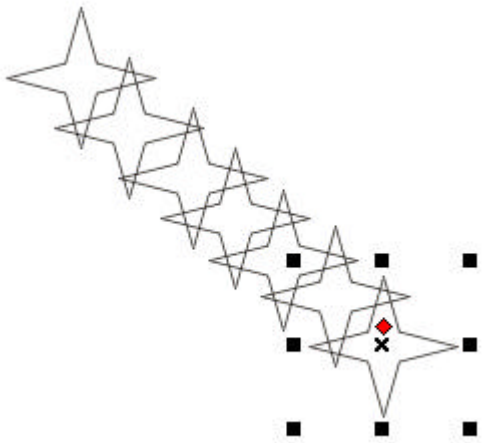
To create a series of objects using smart duplication:

- Select the object you want to duplicate.

- Choose Edit> Duplicate or press ctrl D.A selected duplicate of the original appears.
- Using the Pick Tool, move the duplicate object to the desired position in the series . Be sure to
- leave the dupli-cate object selected.
- To duplicate the repositioned duplicate object, choose Edit> Duplicate or press ctrl D_again.

A second duplicate appears, positioned the same distance and direction away.

- Continue choosing Edit> Duplicate or pressing CTRL D. until there are as many evenly-spaced



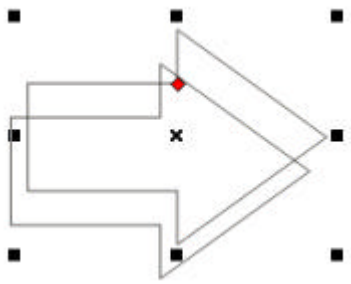
Reposition the first duplicate so it's the desired distance and direction from the original
Continue making duplicates until you've completed the series

Cloning objects

Like duplication, cloning bypasses the Clip-board to quickly create a copy of the original. However, unlike duplication, cloning creates a *link* between the original and the copy. Any changes made to the original also effect the clone.

To clone an object:

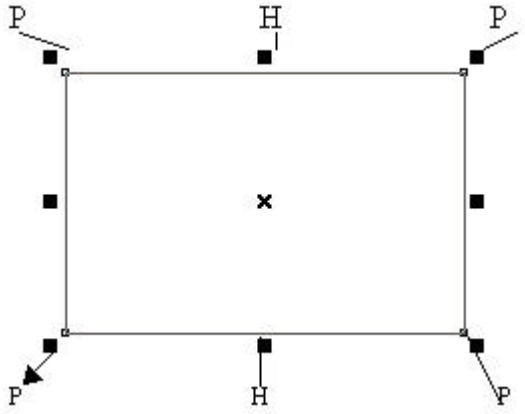
- Select an object with the Pick Tool.
- Choose Edit> Clone.A clone appears
- To make additional clones of the same object, repeat Steps 1 and 2. (Note that you must make each clone from the original object; you cannot clone a clone.)



The clone appears,above and offset from the original.

Resizing Objects

Handles appear in a rectangular formation around an object when it is selected . These handles have various functions:



You can manually alter an object's size horizontally (H), vertically (V), or proportionately (P) by clicking and dragging a handle.

- The handles that appear to the right and left center of the object affect the object's *horizontal scale* by making it wider or nar-rower.
- The handles that appear at the top and bottom center of an object affect the object's *vertical scale* by making it taller or shorter.
- The handles that appear at the corners affect the object's *proportional scale* by simultaneously changing its horizontal and vertical size.

To change an object's size:

1 Select the object with the Pick Tool.

2 Do one of the following:

- To change an object's width, dick the left or right center handle and drag horizontally.
- To change an object's height, dick the top or bottom center handle and drag vertically.
- To proportionately change an object's size, dick any <?orner handle and drag diagonally.

3 . Releas_ the mouse button when the object is the desired size.

Deleting Objects

Rather than reshape. resize. or edit a flawed object. sometimes the preferable action is simply to *delete* the object.
To delete an object:

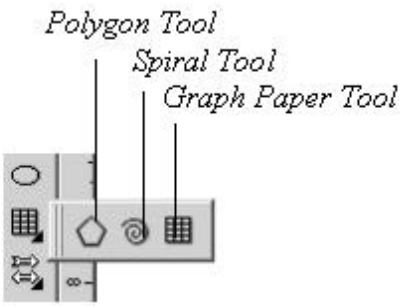
1. Select the object with the Pick Tool or another tool.

2. Choose Edit> Delete or press DEL

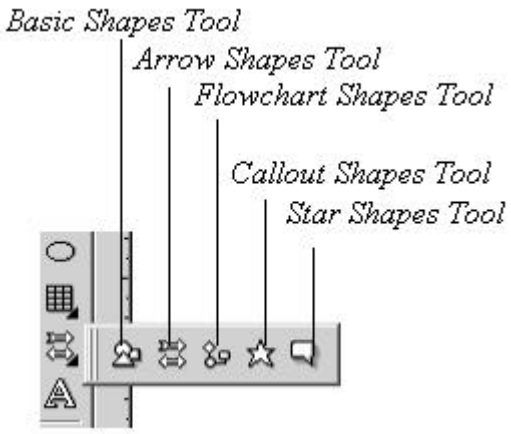
LESSON 6
COMPLEX SHAPES

Complex Shapes

In CorelDraw 10, it's easy to draw many kinds of complex objects. You don't have to con-struct them by painstakingly combining individual objects. All you have to do is select a tool from the Object flyout or Perfect Shapes flyout and then click-and-drag to draw the object



The Object toolbox flyout has tools for drawing polygons. spirals. and grids.



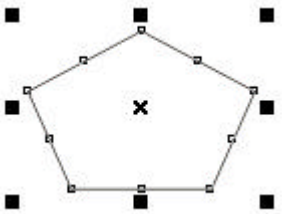
Select a tool from the Perfect Shapes flyout to draw teardrops, arrows, stars, flowchart symbols, and other complex shapes. The techniques you'll learn in this chapter will enable you to add a variety of professional quality objects to your drawings. Not only will you learn how to create polygons, spirals, stars, arrows, and flowchart symbols, but you'll also discover how to create grids with the Graph Paper Tool, text balloons with the Callout Shapes Tool, and smiley faces. tear-drops, hearts, and lightning bolts with the Basic Shapes Tool.

Polygons and Stars

A *polygon* is a multisided closed figure. The simplest form of polygon is a triangle: a three sided object. CorelDraw 10 enables you to create polygons with as many as 500 sides. A *star* is just a special instance of a polygon. Once you've a drawn polygon, you can easily change it into a star and vice versa.

Before or after drawing a polygon or star, you can set or change its options on the property bar.

To create a polygon:



This is a selected polygon with seven sides.

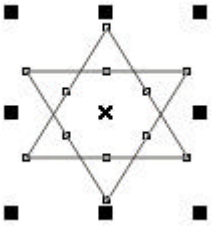
- Select the Polygon Tool from the Object flyout in the toolbox or press Y. The pointer changes to a cross-hair with a tiny polygon attached to it.
- On the property bar, click the Polygon icon and specify the desired number of sides in the Number of Points On Polygon text box
- To create the polygon, click and drag diagonally.When you release the mouse button, nodes appear around the object's perimeter and the object is selected .

Polygon as Star

Using the Polygon Tool. you can create another type of star called *polygon as star*. Unlike the star you just created, a polygon as star is an outline that is easily filled with a color, tex-ture, or pattern.

To create a polygon as star:

- Double-click the Polygon Tool.The Options dialog box appears open to the Polygon Tool section
- Click the Polygon as Star radio button.
- Specify the number of points for the star and adjust the Sharpness slider bar.As you change settings, the prospective star is shown in the preview window.
- Click OK.The drawing window reappears.

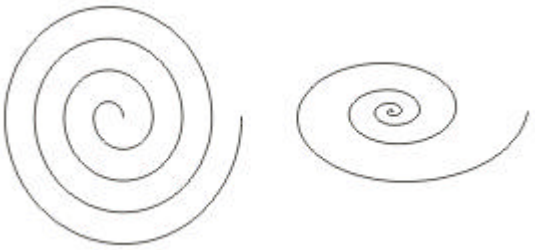


Drag a handle to resile a polygon as star or a node to change its angularity.

- Click and drag to create a polygon as star .Release the mouse button and the object is selected.

Creating Spirals

You can create two types of spirals: symmetri-cal and logarith-mic .The space between revolutions of a *symmetrical spiral* is constant, while the spacing in a *logarithmic spiral* increases with each new revolution.



You can draw two kinds of spirals: symmetrical (left) and logarithmic (right). Press @ill as you drag to create a concentric/ perfect spiral.

To create a spiral:

- Select the Spiral Tool from the Object fly- out in the toolbox or press A.The pointer changes to a cross-hair with a tiny spiral attached to it.
- Select a symmetrical or logarithmic spiral by clicking the appropriate button on the property bar .

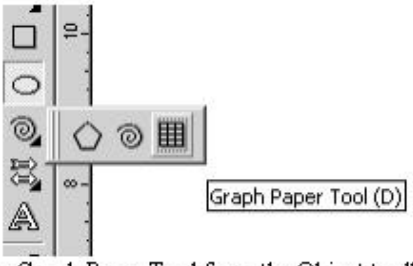
Prior to drawing a spiral, choose the desired settings from the property bar.

- Indicate the desired number of revolutions by entering a number in the Spiral Revolu-tions text box.
- If you've chosen a logarithmic spiral. set a revolution expansion factor by dragging the slider or by entering a number in the Spiral Expansion Factor text box.
- *To* create *the Spiral,left-click and drag* diagonally. Release the mouse button when the spiral' is the desired Size.

Drawing Grids

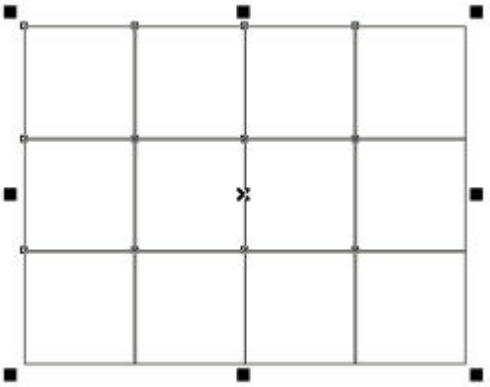
If you want to create an object that looks something like graph paper or a spreadsheet grid, you can use the new Graph Paper Tool.

- Select the Graph Paper tool from the Object toolbox flyout .The pointer changes to a cross-hair with a tiny grid attached to it.



Select the Graph Paper Tool from the Object toolbox flyout.

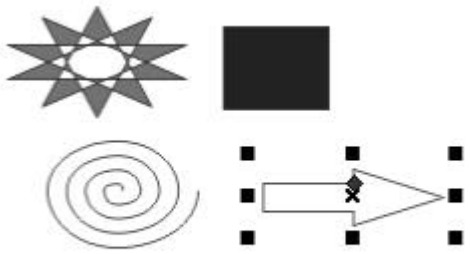
- In the property bar text boxes, specify the number of columns and rows for the grid .
- To draw the grid, click and drag. Release the mouse button when the grid is completed. The grd is selected .



A finished, selected grid with five columns and four rows.

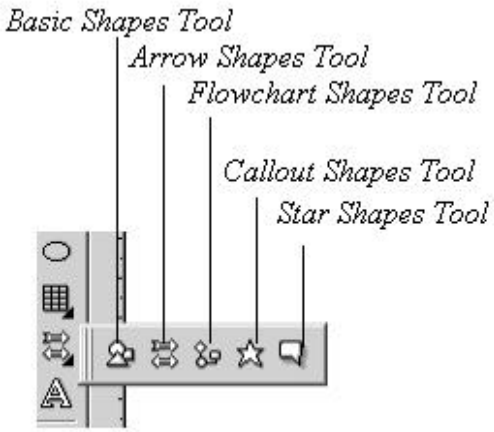
Drawing Perfect Shapes

A new feature in CorelDraw 10. Perfect Shapes are predefined. Familiar objects that you can create as easily as drawing rect-angles and ellipses.



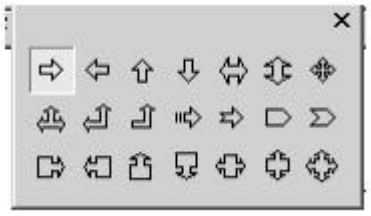
These are just a few of the available Perfect Shapes.

- Select a tool from the Perfect Shapes flyout in the toolbox . The pointer changes to a cross-hair with a tiny Perfect Shapes icon attached to it.



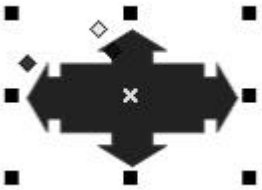
Select a tool from the Perfect Shapes flyout in the toolbox.

- From the Perfect Shapes icon on the prop-erty bar .choose the type of object you wish to draw.



Click the Perfect Shapes prop-erty bar icon and choose a shape from the ones presented.

- Click and drag to draw the perfect shape. Release the mouse button to complete the drawing The new object is selected .



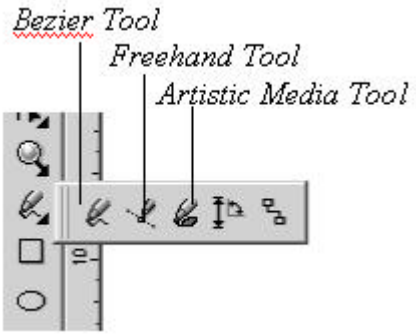
The completed object is selected. Drag a node to change a design aspect of the object-such as the angle of these bubbles.

Notes

LESSON 7
LINES AND CURVES

Lines and Curves

CorelDraw 10 has three tools for drawing lines and curves: the Freehand. Bezier. and Artistic Media Tools. You can find them all on the Curve fly out .



The Freehand. Bezier. and Artistic Media Tools can all be found on the Curve flyout.

Of the three. the Freehand Tool is the most straightforward because it works like a pencil on paper As you drag the Freehand Tool. it creates curves and lines. Mirroring the motions of the mouse.

The Bezier Tool draws on a node-by-node basis. Nodes con-trol the curve of the line segment that passes through them. With the Bezier Tool, you can draw smooth. accurate curves from one node to another: With each click of the mouse. a node is created. Each new node is connected to the previous node by a line segment.

With the Artistic Media Tool, you can draw lines of varying thick nesses and shapes. Paint with a brush or sprayer, and draw calligraphic lines. You drag it to draw. However. Instead of creating a single. Thick outline as the Freehand Tool does. the Artistic Media Tool creates a closed-path object.

Using the Freehand Tool

The Freehand Tool will probably feel familiar to you immedi-ately. At first, your lines may appear rough. But you can always refine them using their nodes and the Shape Tool. As you continue to practice with the Freehand Tool. Drawing will come naturally.

To create a straight line, click to start the line and click where you want it to end

To draw a straight line:

- Select the Freehand Tool .The pointer changes to a cross-hair with a tiny squiggle attached to it.
- Click where you want the line to begin.
- Click where you want the line to end.

To constrain (force) a straight line to an angle:

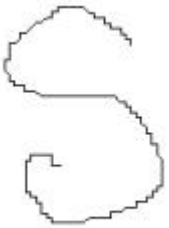
- With the Freehand Tool, click where you want the line to start
- Press and hold down Ctrl.
- Move the *mouse* to where you want the line to end.

Notice that as you move the mouse up or down. the line moves in 15 degree incre-ments.

- Click where you want the line to end. and then release Ctrl.

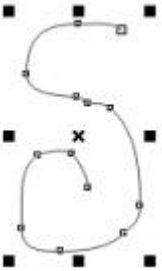
To draw a curved tine:

- Select the Freehand Tool.
- Click and drag (as you would when draw-ing with a pencil on paper) to create the curve.



Click and drag to draw the desired shape

- Release the mouse button when you're finished.



When you're done draw-ing, release the mouse button. Nodes automatically appear along the drawn path.

CorelDraw smoothes the curve. Several nodes appear along the path.

To erase part of a tine as you draw:

- Without releasing the mouse button, press and hold down Shift .
- Drag the Freehand Tool backwards along the line that you've drawn. As you drag backwards, the line is erased.

- Release Shift when you're done erasing (but don't release the mouse button).
- Resume drawing the line.

To create a dosed object:

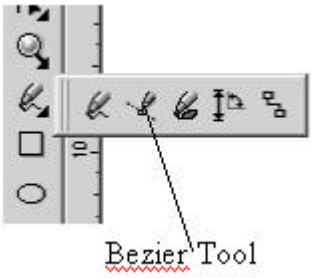
- Use the Freehand Tool to create the desired shape, but make sure that the line segments begin and end at the same point.

Using the Bezier Toot

You can use the Bezier Tool to precisely draw smooth curves, node-by-node. As each node is created, you can control the curvature of the line by manipulating the node's control points.

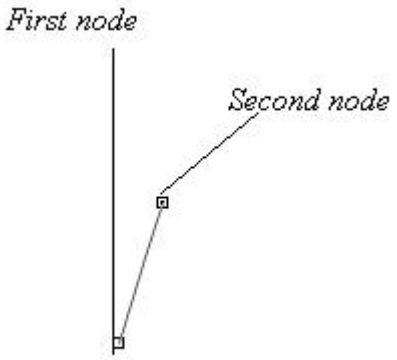
To draw a straight line:

- Select the Bezier Tool from the Curve fly-out .The pointer changes to a cross-hair with a tiny curve connected to it.



Select the Bezier Tool from the Curve flyout.

- Click to position the first node.
- Click to place the next node. A straight line segment appears between the two nodes .

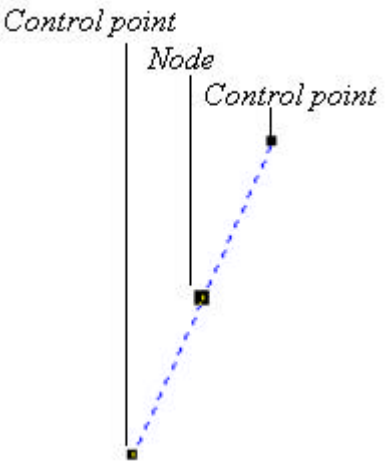


Click once to place the first node and a second time to place the next node.

- To draw additional connected straight lines, repeat Step 3.
- When you are done drawing. press Spacebar or select another tool

To create a curve:

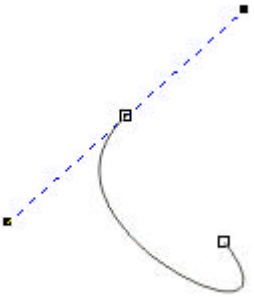
- Select the Bezier Tool.
- Position the Bezier Tool where you want to start the curve, and then click and drag. A node appears with two control points that stretch in opposite positions as you drag .



Click and drag to create a node with two control points.

- Release the mouse when the control points are the desired distance from the node.
- Move the mouse to where you want to place the next node.
- Click and drag to create another node with two control points.

A curved line segment appears between the two nodes .

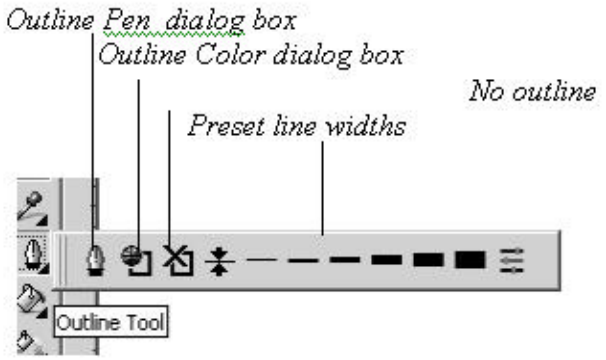


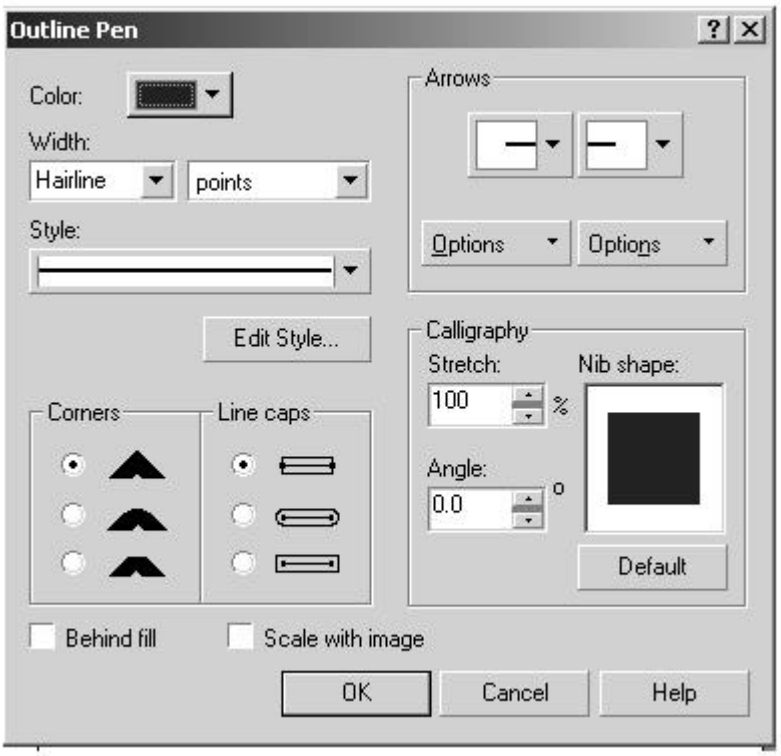
Click and drag again to add a second node and create the curve.

- To add another node to continue the curve, repeat Steps 4 and 5. To stop adding nodes to the curve, press Spacebar.

Setting Line Properties

In the Outline flyout. you can set a line width for an object or open an outline dialog box.





Use the Outline Pen dialog box when you want to change several line/outline properties at the same time

Creating lines and curves is just the begin-ning. Using the Outline flyout and the Outline Pen dialog box . You can make lines thicker. Change the style from solid to dashed or dotted. Pick a new color. add arrowheads. or make them look like they were drawn with a calligraphy pen.

The Outline ftyout

You may have already noticed that the last three icons in the toolbox are separated from the rest by a line. This is because these three icons-the Eyedropper and Paint bucket Tools. the Outline Tool. and the Fill Tool-work dif-ferently from their neighbors. Instead of being used for drawing. these three icons represent tools that change the appearance of a drawing. In this section. you'll learn about the Outline Tool and the options on the Outline flyout.

The Outline Pen dialog box

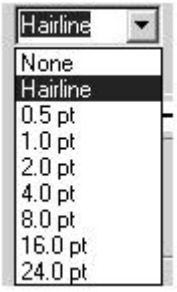
The Outline Pen dialog box is used to change the properties of lines drawn with the Freehand. Bezier. and Artistic Media Tools. as well as the outlines of objects drawn with the Rectangle. Ellipse. and Polygon Tools.
When you need to make multiple changes to a line's properties. The Outline Pen dialog box is extremely useful. For simple changes. However. its faster to choose new settings from the property bar.

To change a line's width:

1. Select a previously drawn object or line.

2. *Do one of the following:*

- Open the Outline Tool flyout, and choose one of the preset line width icons . .
- Choose a line width from the Outline Width drop-down list on the property bar.



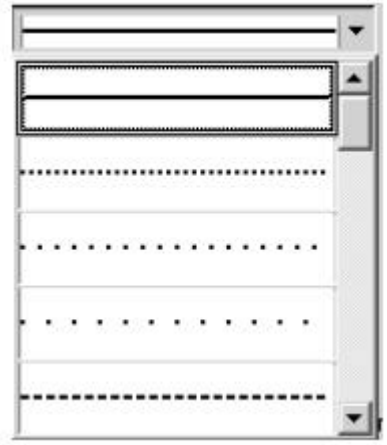
You can choose a new line or outline width from this drop-down list on the property bar.

- Select the Outline Pen dialog box from the Outline flyout or pressF12. Choose a line thickness from the Width drop- down list . Click OK

To change a line's style:

1. Select a previously drawn object or line.

2. Choose a line style from the Outline Style. Selector drop-down list on the property bar.

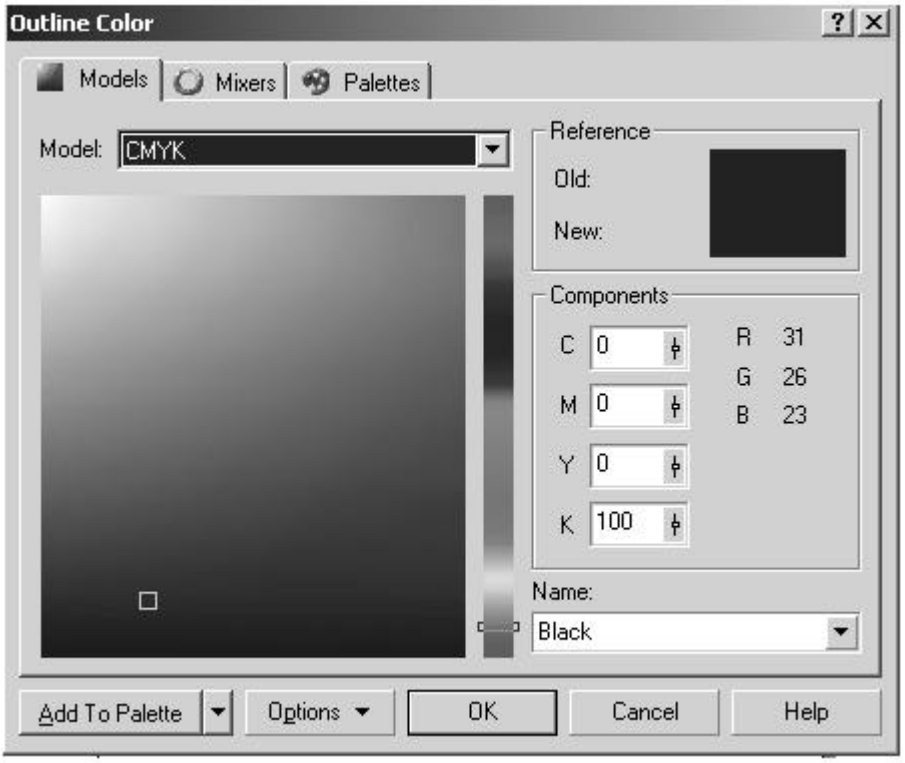


Choose a line or outline style from this drop-
down list on the property bar. (To eliminate an object's outline, choose the X.)
or
Select the Outline Pen dialog box from the Outline flyout or press F12. Choose a new line style from the Style drop-down list . Click OK

To set a line's color:

1. Select a previously drawn object or line.
2. *Do one of the following:*

- Right-click a color in any open color palette.
- Select the Outline Pen dialog box from the Outline flyout or press F12. Choose a new color style from the Color drop-down list. Click OK.

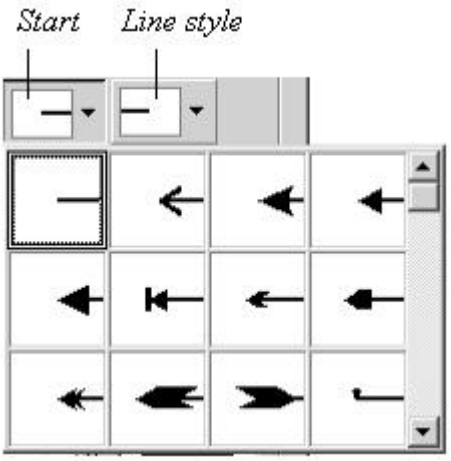


Click the Models tab and select a line or outline color in the Outline Color dialog box by click-ing or by using the provided controls.

- Select the Outline Color dialog box from the Outline flyout. On the Models tab, choose a color by clicking in the colored area, dragging the slide, choosing from the Name list, and/or entering numbers in the text boxes. Click OK.

Adding Arrowheads

You can embellish any line or curve by adding a starting and/or ending arrowhead to it . And if you don't like the predefined arrowhead styles. you can design your own.



Choose arrowhead start and end styles from the drop-down lists on the property bar or in the Outline Pen dialog box.

To add arrowheads to a line:

1. Select a line with the Pick Tool.
2. Choose line start and end styles from the drop-down lists on the property bar .

or

Select the Outline Pen dialog box from the Outline flyout or press F12. Choose line start and end styles from the drop-down lists in the Arrows section of the dialog box . Click OK

Creating custom arrowheads

You can create custom arrowheads from any shape, letter. Or symbol.

To create a custom arrowhead:

1. Using the Pick Tool. select a letter; symbol. or shape in the drawing window that will become the arrowhead .

Select a symbol. letter, or shape in the drawing window.

2.. Choose Tools> Create> Arrow.The Create Arrow dialog box appears ask-ing if you want to' create an arrowhead from the selected object.
3. Click OK. The letter, symbol. or shape is added as a new arrowhead at the bottom of the Start and End drop-down lists.
4. Use the Pick Tool to select the line to which you want to add the arrowhead
5. From the Start and/or End lists in the property bar or the Outline Pen dialog box, select the new arrowhead. The custom arrowhead appears attached to the selected line .

Reshaping or sizing arrowheads

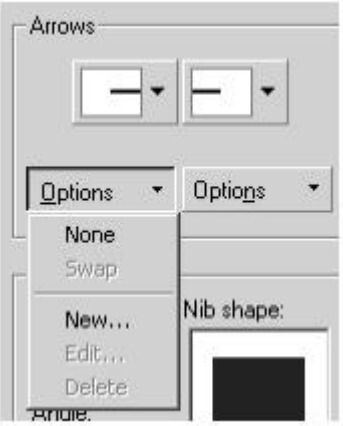
Like other objects, you are free to change the shape and size of existing arrowheads, as well as those of the custom arrowheads you've created. (You'll note that custom arrowheads are often very tiny. Using the following proce-dure, you can enlarge them.)

To change an arrowhead's shape/size:

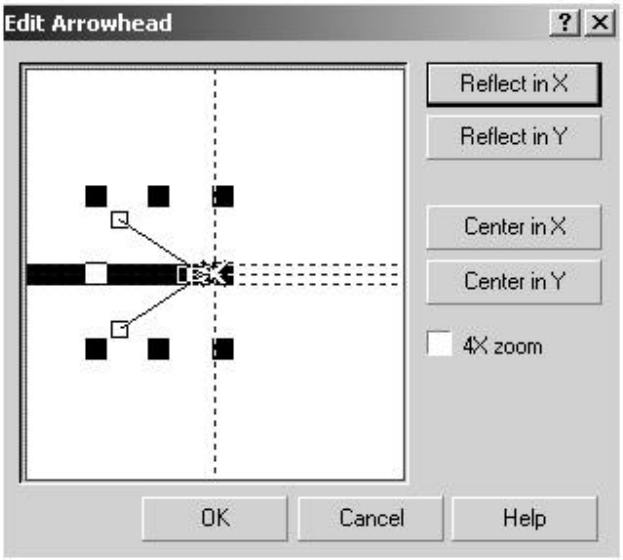
1. Add the arrowhead to a line in the drawing window, and then select the line.
2. On the property bar, open the start or end drop-down list that displays the arrowhead and click the Other button.

or

In the Arrows area of the Outline Pen dia-log box, click the Options button beneath the displayed arrowhead and choose Edit . The Edit Arrowhead dialog box appears .



Click the Options button beneath the arrowhead, and choose Edit.



Use this dialog box to change the size and/or shape of the arrowhead.

- Drag handles to change the arrowhead's size and/or shape. (Drag a corner handle to resize proportionately.)
- Click OK when you are done editing. (If the Outline Pen dialog box is open, click OK to close it, too.)

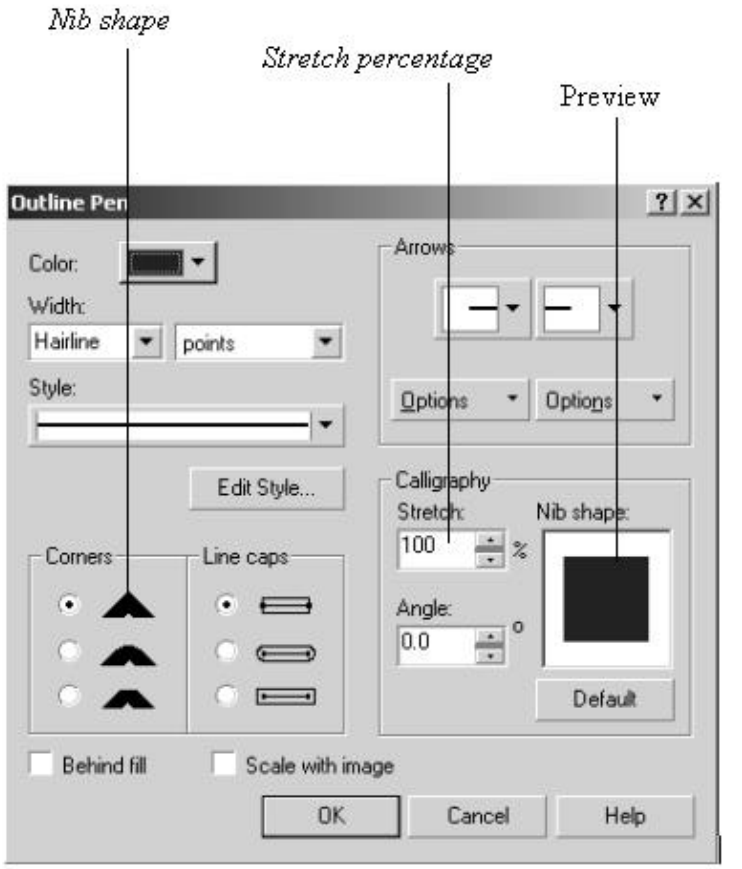
Calligraphic Lines

By setting options in the Outline Pen dialog box, you can edit an existing line to make it look like it was drawn with a calligraphy pen.

To give a line the appearance of calligraphy:

1 . Select an existing line with the Pick Tool .
Select a line to which you want to add a calligraphy effect.

2. Select the Outline Pen dialog box from the Outline flyout or press F12.The Outline Pen dialog box opens .

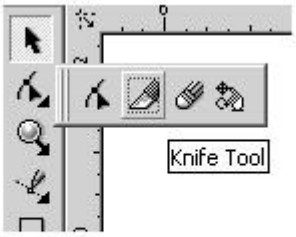


Select a corner (nib) shape. specify a Stretch percentage, and set an angle.

3. Select a corner style for the nib shape. The top and bottom styles create a square nib. The middle style creates a round nib. (A *nib* is the point of a calligraphy pen.)
4. In the Calligraphy area. set the nib's Stretch and Angle. The Stretch setting determines how square or round the nib will be. The lower the setting. the thinner the nib and the more variation there will be in line thickness.
5. Click OK. The line is redrawn to look like it was drawn with a calligraphy pen. Note the variations in line thickness.

Figure 7.23 When you close the dialog box. the line is transformed.

Cutting Objects Apart

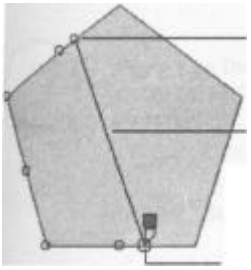


Select the Knife Tool from the Shape Tool flyout.

The Knife Tool cuts away a portion of an object's path while adding new paths. It works like the Freehand Tool. You can make straight cuts or freehand cuts.

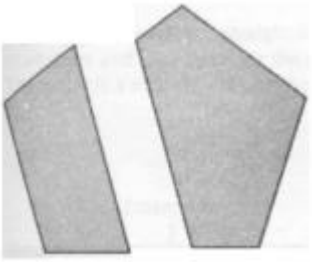
To make a straight cut:

1. Select the Knife Tool from the Shape Tool flyout. The cursor changes to an angled knife.
2. Move the knife cursor over the object's path where you want to start cutting. When the cursor is over the path, it snaps upright-indicating that it's ready to cut.
3. Click to start the cut.
4. Move the cursor to the spot on the path where you want to finish the cut. CorelDraw previews the cut .



When the Knife [001 touches the path again, you'll be shown a cut preview.

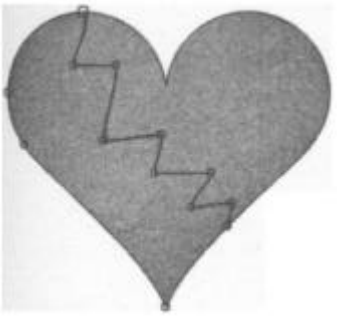
5. To complete the cut, click a second time. A straight line appears, splitting the object in two. If you switch to the Pick Tool, you'll see that you can drag the pieces apart .



After the cut, you can drag the two objects apart.

To make a freehand cut:

1. Select the Knife Tool.
2. Move the knife cursor over the object's path where you want to start cutting. When the cursor is over the path, it snaps upright-indicating that it's ready to cut.
3. Click and drag as if you were drawing a line with the Freehand Tool .



To illustrate a broken,you can use a freehand cut.

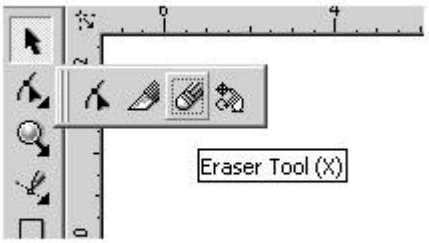
4. Release the mouse button when the cursor reaches the spot on the object's path where you want to stop cutting. The freehand cut splits the object. If you switch to the Pick Tool. you'll see that you Can drag the pieces apart.

Using the Eraser Tool

One way to remove part of an object is to use the Shape Tool to cut or delete nodes. Another is to use the Eraser TooL With a swipe of the Eraser Tool, you can selectively erase parts of an object-just as you can when editing a bitmap photo with an image-editing program.

To erase part of an object:

1. Select the Eraser Tool from the Shape Tool flyout or press X. The cursor changes to a pencil eraser with a circle attached to it. The circle indicates the area that will be erased.



Select the Eraser Tool from the Shape Tool flyoul.

2. Select the object you want to work on by clicking it with the Eraser TooL
3. *Do one of the following:*

- Double-click to erase the area beneath the circle.
- Click and drag to remove an irregular portion of the object.
- For a straight erasure , click once to set the starting point for the erasure and click a second time to indicate the end point.

CorelDraw modifies the object's path to account for the erasure.

Use these property bar controls to change the size or shape of the eraser.

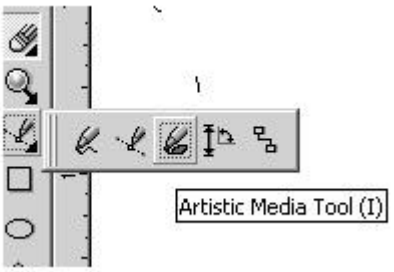
The Artistic Media Tool

Using the Artistic Media Tool. you can draw lines of varying thick nesses and shapes, paint with a brush or sprayer, or draw calligraphic lines. The tool has five drawing modes: Preset, Brush. Sprayer, Calligraphic, and Pressure. You can use the Artistic Media Tool in two ways:

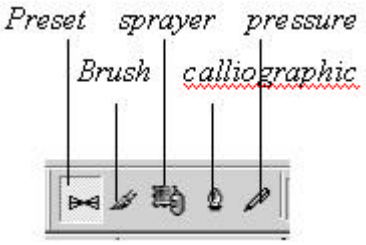
- Draw with it as you do the Freehand Tool-click and drag to create lines.
- Select an existing object, such as a line or circle. and apply one of the Artistic Media Tool strokes to it.

To set the Artistic Media Toot's mode:

1. Select the Artistic Media Tool from the Curve flyout or press I.



Select the Artistic Media Tool from the Curve flyout.
2. Click one of the five icons on the property bar (Figure 7.34). Each Artistic Media Tool mode produces a different effect.



Click an icon on the property bar to set the Artistic Media Tool's current mode.

Using Preset mode

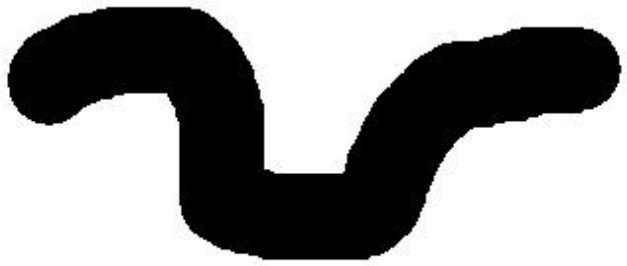
The Preset mode of the Artistic Media Tool draws. curves using preset strokes that you select from the property bar.

To draw a Preset curve:

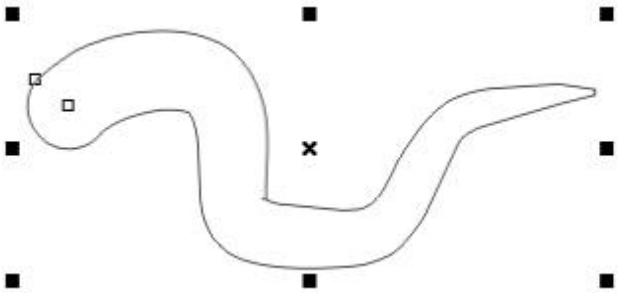
1. . Select the Artistic Media Tool from the Curve flyout .

Set the Artistic Media Tool mode and options using the property bar controls.

2. Cfick the Preset mode icon on the property bar .
3. Set the curve's width in the Artistic Media Tool Width text box .
4. Select a stroke shape from the drop-down list of preset strokes .
5. Click and drag to create the desired shape. When you release the mouse button, the curve redraws as an outline-ready for filling with a color, texture, or pattern .



Click and drag to draw the desired shape



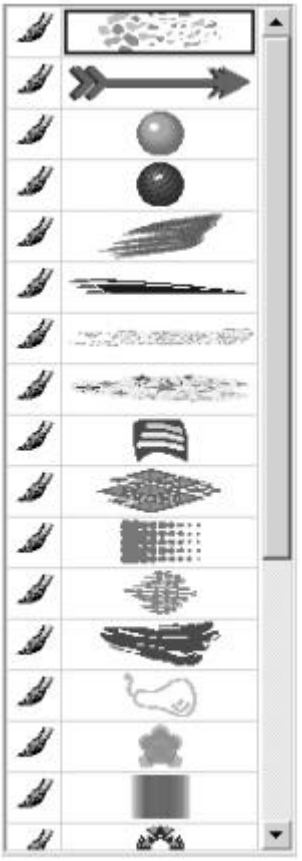
When you release the mouse button, the shape is redrawn to match the tool's settings.

Using Brush mode

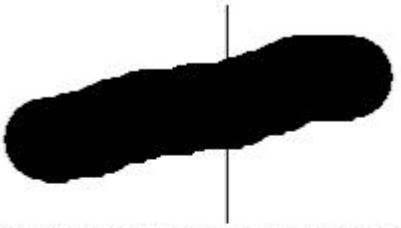
Brush mode is used to apply predefined brush strokes to curves. It works just like Preset mode. All you have to do is select a brush stroke from the property bar, and then click and drag.

To draw a Brush curve:

1. Select the Artistic Media Tool from the Curve flyout .
2. Click the Brush mode icon on the property bar .
3. Set the curve's width in the Artistic Media Tool Width text box.
4. Select a brush stroke from the Brush Stroke List .
5. Click and drag to create the desired shape. When you release the mouse button, the curve redraws using the chosen brush style



Select a brush stroke from the drop-down list on the property bar.



Click and drag to create the brush stroke.

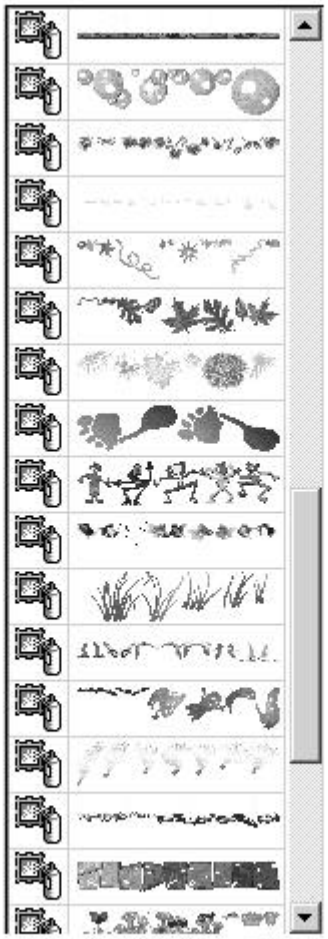
When you release the mouse button. the shape is redrawn to match the tool's settings.

Using Sprayer mode

The Sprayer mode lets you add a series of objects-such as ghosts, bats, flowers, and pebbles-to the curves you draw.

To draw a Sprayer curve:

1. Select the Artistic Media Tool from the Curve flyout .
2. Click the Sprayer mode icon on the prop-erty bar .
3. Select a stroke style from the Spray list File List on the property bar.
4. Click and drag to create the desired curve. (You'll note that the curve is a nice, thin line rather than the blobs generated when you draw in Preset or Brush mode.)



Pick a stroke style from the Spraylist File List.

When you release the mouse button, the curve redraws, displaying the sprayer objects you selected

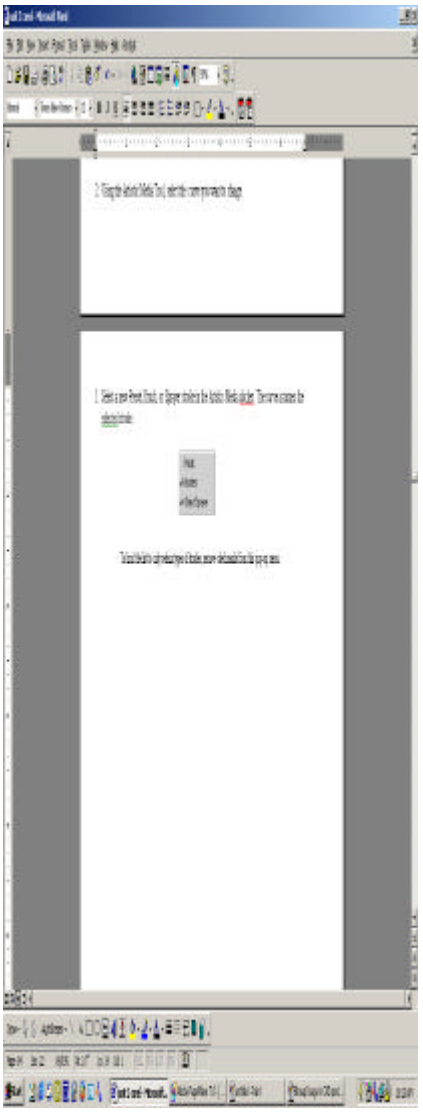
When you release the mouse button, the shape is redrawn to match the chosen spray pattern.

Applying a mode to a curve

It's also possible to apply the Preset, Brush, or Sprayer modes to a curve that has already been drawn.

To apply a mode to an existing curve:

1. Open the Artistic Media docker by choosing Window> Dockers> Artistic Media.



To apply a stroke to a selected curve, pick one from the scrolling list.

2. Using the Artistic Media Tool, select the curve you want to change.
3. Select a new Preset, Brush, or Sprayer stroke in the Artistic Media docker. The curve assumes the selected stroke.

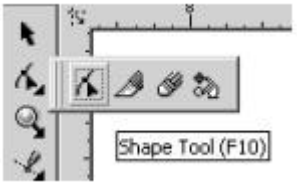
To limit the list to only certain types of strokes, remove checkmarks from this pop-up menu.

Notes

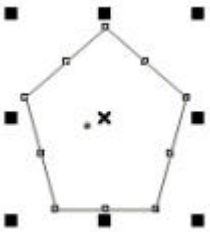
LESSON 8
THREE TYPES OF NODES AND PATHS

Nodes and Paths.

You use the Shape Tool to manipulate an object's nodes. *Nodes* are the small, hollow squares that appear on an object's path immediately after the object is drawn or when it has been selected with the Shape Tool. A *line segment* is the line that connects a pair of nodes.



Select the Shape Tool from the Shape Edit flyout or press F10
Nodes may appear to be of no consequence, but, in fact, they are very powerful. You use the nodes to manipulate specific line segments of an object's path, enabling you to make intri-cate changes to the object's shape. For coarser changes. you can manipulate the line segments.



Nodes appear on an object's path when it's selected.
When you select the Shape Tool. the pointer changes to a triangular. black arrowhead. When you use the Shape Tool to select a node, two things happen: the node changes from hollow to black, and one or two control points attached to the node by levers become visible (Figure 6.3). *Control points* determine the curvature of the segments of a path. *Levers* are visual representations that tell you which control point or points go with which node.
In order for a path segment to be bent, it must have control points. If a path segment is not bordered on either side by a control point, the path segment will be straight. A node can have between 0 and 2 control points.

Three Types of Nodes

CorelDraw has three types of nodes:

- A *smooth node* is used to create a seamless curve. The control points of a smooth node are always directly opposite each other: If you move a control point, the opposite control point moves, too. The distance between control points can vary (Figure 6.4). This means that the path on one side of a node can be curved differently than the path on the other side of the node.

the control points for a smooth node are locked into alignment. but the levers can be different lengths

- A *symmetrical node* is similar to a smooth node. Its control points are always oppo-site each other; if you move a control point, the opposite control point moves, too. What's different is that the control points are always the *same* distance from each other . This results in an even shape on both sides of the node.
- A *cusp node* is used to create sharp corners on a path. The cusp node's control points move independently of each other; thus, a curve that passes through a cusp node can bend at a sharp angle.

The control points for a symmetrical node are also locked into alignment, but the levers are the same length.

To change any type of node to another type, right-click it with the Shape Tool and choose a node type from the pop-up menu that appears. The type of node you choose depends on how you want to shape the sur-rounding line segments.

Working with Nodes

To modify a curve, you select and manipulate its nodes. Here are some of the things you can do with nodes:

- Add control points to a node
- Make straight lines curved or curved lines straight
- Move nodes to different positions and manipulate their control points.
- Add or delete nodes
- Break nodes apart
- Join two nodes into one

Selecting nodes

Of course, in order to work with nodes, you must first select them.

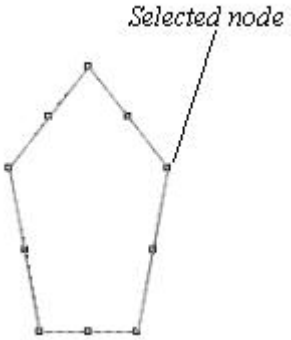
To select a node:

1. Select a curve object (or one that has been converted to a curve object) with the Shape Tool.

   The object's nodes appear on the shape's path. (Check the status bar to make sure that the object is

   a curve.)

2. Click a node with the Shape Tool to select it .



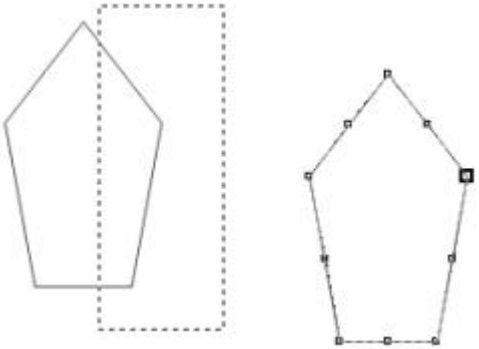
Use the Shape Tool to select a node on a curve object or one con-verted to a curve object.

To select multiple nodes:

1. Select a curve object with the Shape Tool.
2. Hold down Shift while clicking the nodes you wish to select.

or

Drag a marquee around the nodes you wish to select .



You can use the marquee selection tech. nique (left) to drag-select several nodes at once. In this example, four nodes have been selected (right).

Node and path properties

You can use property bar icons to change the properties of nodes and paths. For example, suppose there are two lines that you want to connect. You could use the property bar to join the nodes at the end of each line. You can also click icons to change a straight line into a curve or a curved line into a straight line, as explained in the following sections.

Making a straight line into a curve

The selected node has no control points, indicat-ing that the line is straight.
Sometimes you'll encounter anode with no control points . This is because a straight line segment is passing through the node. To add control points to such a node. you must convert the line to curves.

To add control points to a node (or make a straight line curved):

1. Use the Shape Tool to select a node that has no control points.The property bar displays node editing icons.
2. Click the Convert Line To Curve icon

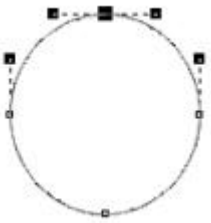
After converting the straight line to a curve, control points border the line segment.
Control points appear, bordering each side of the line segment one on the selected node and the other on the node located in a counterclockwise posi-tion from the selected node.

Making a curved line straight

To make a curved line segment straight. you do the opposite of converting a line to curves.

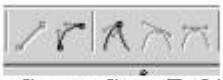
To make a curved line straight:

1. Use the Shape Tool to select the node you want to convert .

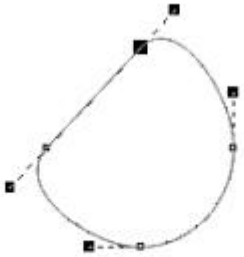


Use the Shape Tool to select a node that *you* want to convert to a straight line.

Click the Convert Curve To Line property bar icon .The control points disappear and the line becomes straight .



Click the Convert Curve To Line icon.



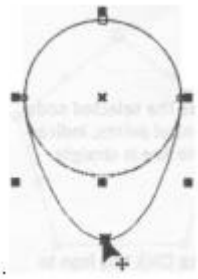
This is the formerly curved line converted to a straight line.

Reshaping an object

Of course, the main purpose of nodes is that you can use them to modify line segments and change an object's shape. To change the shape of an object, you can drag nodes, control points, or line segments.

To move a node:

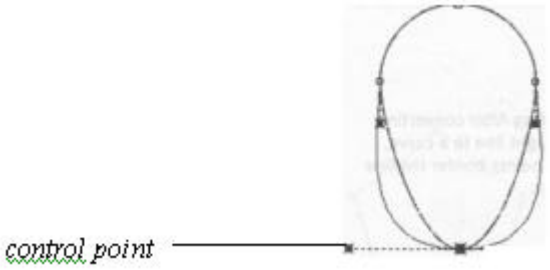
1. Select the object with the Shape Tool.
2. Click the node and drag until you are satisfied with the resulting shape.



You can click and drag a node to change an object's shape-adding an elongated curve to this circle, for example.

3. Release the mouse button.

To manipulate a control point:\



1. Select a node with the Shape Tool.
2. Click and drag a control point until you achieve the desired curve

To alter a line segment:

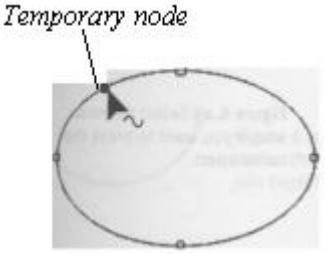
1. Select the object with the Shape Tool.
2. Place the pointer of the Shape Tool on the object's path. A small squiggle appears, attached to the Shape Tool's pointer:
3. Drag a line segment with the Shape Tool. As you drag. you'll note that stretching the line segment also affects the rest of the object.; the nodes remain stationary while the line segments stretch and curve according to the type of node they pass through.
4. When you are pleased with the shape, release the mouse button.

Adding nodes to a path

To help you shape a path. you can add more nodes wherever they're needed Nodes can be added *manually* (by clicking the desired loca-tion on a line segment) or *automatically* (placed in the exact middle of a line segment).

To manually add a node to a path:

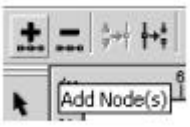
1. Select the object with the Shape Tool.
2. Click on the path where you want to add the node. A circular, temporary node appears on the line segment .



Click the point on the path where you want to create a new node.

3. Do *one of the following:*

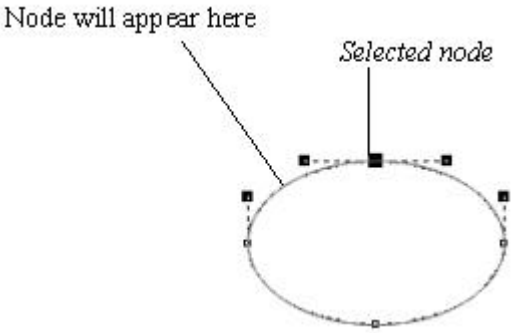
- Right-click the temporary node and select Add from the pop-up menu that appears.
- Press the + key on the numeric keypad.
- Click the Add Node(s) icon on the property bar .



Click the Add Node(s) icon on the property bar.

To automatically add a node to a line segment:

1. Using the Shape Tool, select the node whose position is clockwise to the line segment you want to edit . The property bar displays node editing icons.
2. Click the Add Node(s) icon on the prop-erty bar . A new node appears that evenly divides the path into two seg



Select the node clock-wise from the line segment on which you want to add a node.

Deleting nodes

You can also delete nodes. if necessary.

To delete a node from a path:

- Select the node with the Shape Tool. and press Dell or press - on the numeric keypad.
- Select the node with the Shape Tool. and click the Delete Node(s) icon on the prop-erty bar.
- Double-click the node.
- Right-click the node. and choose Delete from the pop-up menu that appears .

Breaking a curve

Using the Break Apart command. you can change a closed-path curve into an open path.

To break a curve apart:

1. With the Shape Tool. right-click the node where you want to break the curve and choose Break

Apart from the pop-up menu that appears .

Or

Select the node with the Shape Tool and click the Break Curve icon on the property bar.

Select the node where you want to break the curve apart.

2. Use the Shape Tool to move the new node off the original node .

Joining two nodes

To create a closed path, you can join a pair of nodes. There are two ways to do this. You can:

- Change two nodes into a single node
- Connect the two nodes with a straight line.

To join two nodes into one:

1. Select the first node with the Shape Tool. The property bar displays node editing icons.
2. Press Shift and click the second node that you want to join to the first.

Select two nodes that you wish to join together

3. Click the Join Two Nodes icon on the prop-erty bar. The two nodes move together and become one.

Click the join Two Nodes icon.

To join two nodes with a straight line:

1. Select the two nodes you want to join. The property bar displays node editing icons.
2. Click the Extend Curve to Close icon on the property bar .A straight line appears, joining the nodes .

The two nodes are joined together by a straight line.

Click the Extend Curve to Close icon on the property bar.

Notes

LESSON 9
PAGE AND DOCUMENT SETUP

Page Age and Document Setup

Besides being a versatile drawing tool, CorelDraw 10 has impressive desktop publish-ing capabilities. This means that you can use it to design many types of multi-page publica-tions. such as brochures. flyers. and catalogs. In addition. you can create documents for any paper size that is used anywhere in the world.

In this chapter. you'll learn how to accomplish the following tasks:

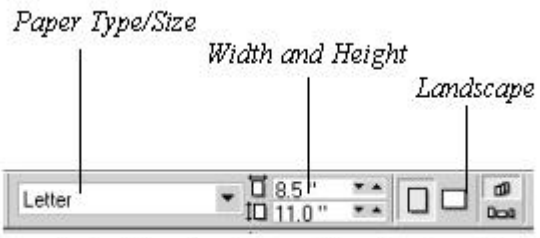
- Set page size and orientation
- Set an optional document background
- Add. delete. Rearrange. and name docu-ment pages
- Navigate among document pages
- View a document's information

Setting Page Size and Orientation

When creating a drawing. it's important to design with a particular paper size and orien-tation in mind. You can use either of the following procedures to specify these settings.

To set a page size and orientation using the property bar:

1. With nothing selected on the drawing page. choose the Pick Tool from the toolbox.
2. On the Property Bar. click the down arrow beside the Paper Type/Size drop-down list and choose a paper . The chosen paper's dimensions are dis-played in the Width and Height text boxes.

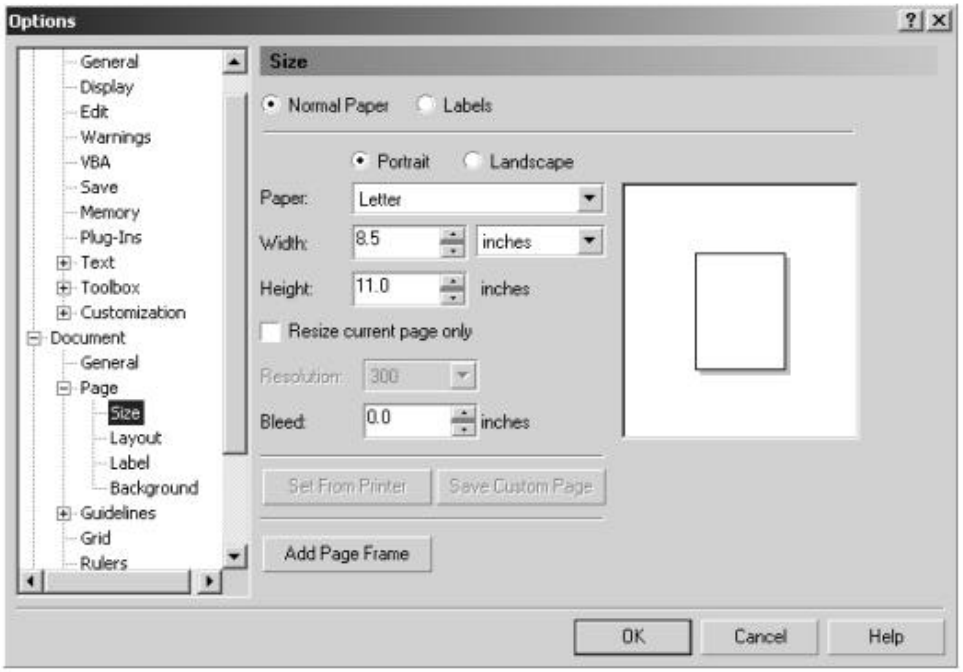


You can set page size and orientation for a document by choosing options from the property bar,

3. Click the Portrait (vertical) or Landscape (horizontal) icon to set a page orientation.

To set a page size and orientation using the Options dialog box:

1. Choose Layout> Page Setup. The Options dialog box appears. Open to the Size section.

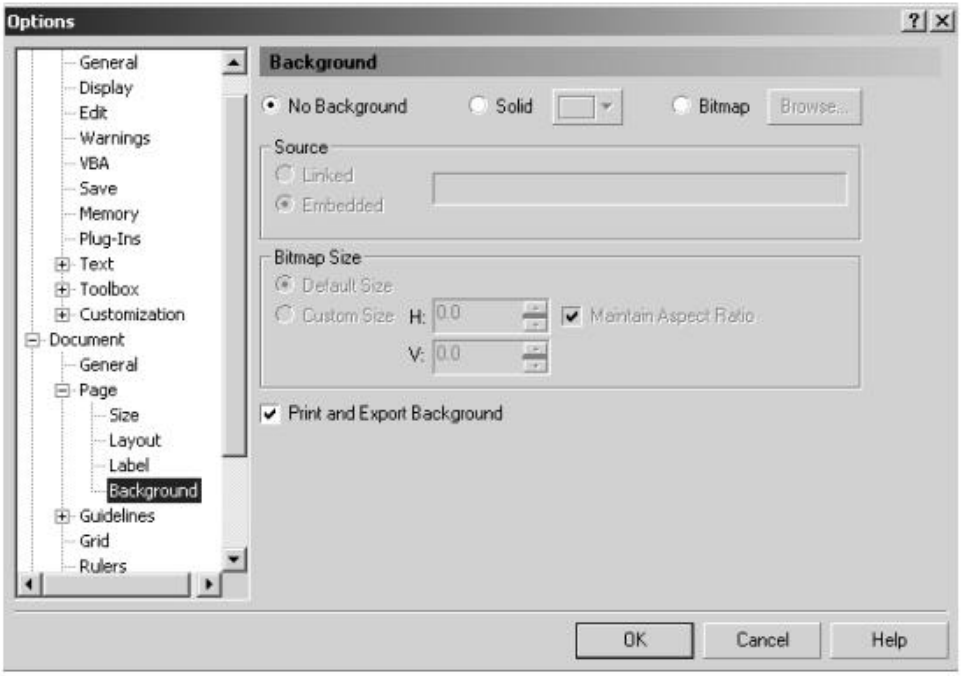


Standard and advanced page options can be set in the Options dialog box.

2. Click the Normal Paper radio button.
3. Choose a paper size from the Paper drop- down list.
4. Click the Portrait or Landscape radio but-ton to set the page orientation.
5. *Optional:* To set a paper size for only the currently selected page. click the check box marked Resize current page only.
6. *Optional:* To set the page orientation to match the orientation set for your printer in the Print Setup dialog box (displayed by choosing File> Print Setup). click the Set From Printer button.
7. Click OK to accept the settings.

Setting a Page Background

You can add a background color or picture to any document. Backgrounds are commonly used on party invitations. Brochures. and Web pages. for example. (Note that when you set a background. it is applied to *all* pages in the document.)

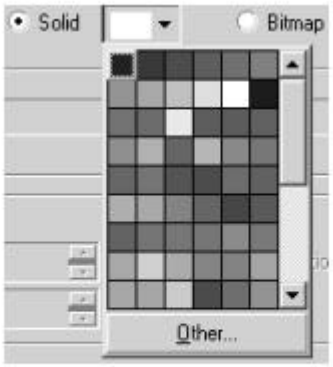


Choose a background color or picture in the Background section of the Options dialog box.

To add a document background:

1. Choose Layout> Page Background. The Options dialog box appears, open to the Background section .
2. Select one of these options:

- To remove an unwanted background. click the No Background radio button.
- To set a single-color background. click the Solid radio button and select a color from the palette to the right .



Pick a background color. Click Other to choose a color that isn't displayed.

- T o use a bitmap image (such as a JPEG file) as the background. click the Bit-map radio button. click Browse to display the Import dialog box . And select a picture file.From the drop-down list. choose Full Image to display the image as or is. choose Crop to use only a selected part of the image. or choose Resample to change the image 's dimensions and resolution. Click the Open button.

3. Bitmaps only: In the Source section of the dialog box . click the Embed-ded radio button to add the background as a static entity. Click the Linked radio but-ton to maintain a link to the bitmap file. enabling it to automatically update if you edit the bitmap. To change the size of the bitmap. click the Custom radio button in the Bitmap Size section and enter new horizontal (H) and vertical(V) dimensions.

4. Click OK.

Adding Pages

You can use either of the following procedures to add new pages to a document.

To add pages to the beginning or end of a document:

1. Locate the Document Navigator in the lower-left corner of the screen.
2. To insert a new page at the beginning of the document. click the tab for the current first page and click the left plus (+) icon.

or

To insert a new page at the end of the document. click the tab for the current last page and click the right plus (+) icon.

To add pages anywhere in a document:

1. Choose Layout> Insert Page. The Insert Page dialog box appears .

You can insert one or more consecutive new pages using the Insert Page dialog box.

2. In the Insert text box. enter or select the number of pages you wish to add.
3. Click the Before or After radio button.
4. In the Page text box. Enter the page num-ber that the new page(s) will be inserted before or after:
5. *Optional:* Specify a new orientation or paper size for the inserted page(s).
6. Click OK.

Deleting Pages

If you decide that a page is no longer needed, you are free to delete it.

To delete one or more pages:

1. Choose Layout> Delete Page. The Delete Page dialog box appears, show-ing the currently selected page .
2. You can delete an individual page or a consecutive range of pages:

- To delete one page, enter its page num-ber in the Delete page text box.
- To delete a range of pages, enter the number of the first page in the Delete page text box. Click the Through to page check box and enter the number of the last page in the second text box.

3. Click OK.

The page or range of pages is deleted. The remaining pages are renumbered.

LESSON 10
COLOR AND FILLS

Color and Fills

In this chapter, you'll learn how to fill closed objects with uniform/solid colors, fountain fills (gradients), patterns, and textures; change outline colors; and sample a color from one object and apply it to a different object. You will use the color palette, Fill TooL Interactive Fill Tool, Interactive Mesh Fill Tool, Eyedrop-per Tool, and Paint bucket Tool.

Solid Color Fills and Outlines

Color can bring a drawing to life. Filling an object with a solid color (called a *uniform fill)* is just a point-and-click procedure. However, before an object can be filled with color, it must have a closed path.

To ensure a freehand object has a dosed path:

1. Select a freehand object with the Pick Tool. If the Auto-Close Curve icon is visible on the property bar, the curve is open; if not, the curve is closed.

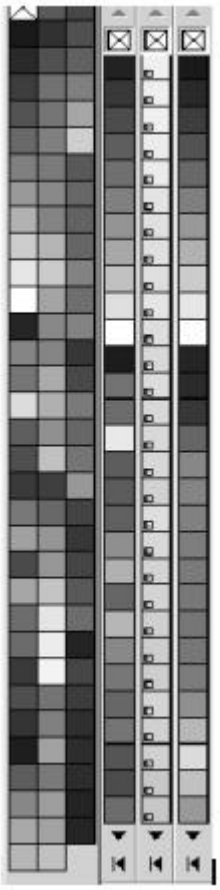
You can close paths manually or click the Auto-Close Curve *icon*

3. To close the curve, click the icon.

To fill objects with a solid color:

1. Select one or more closed objects.

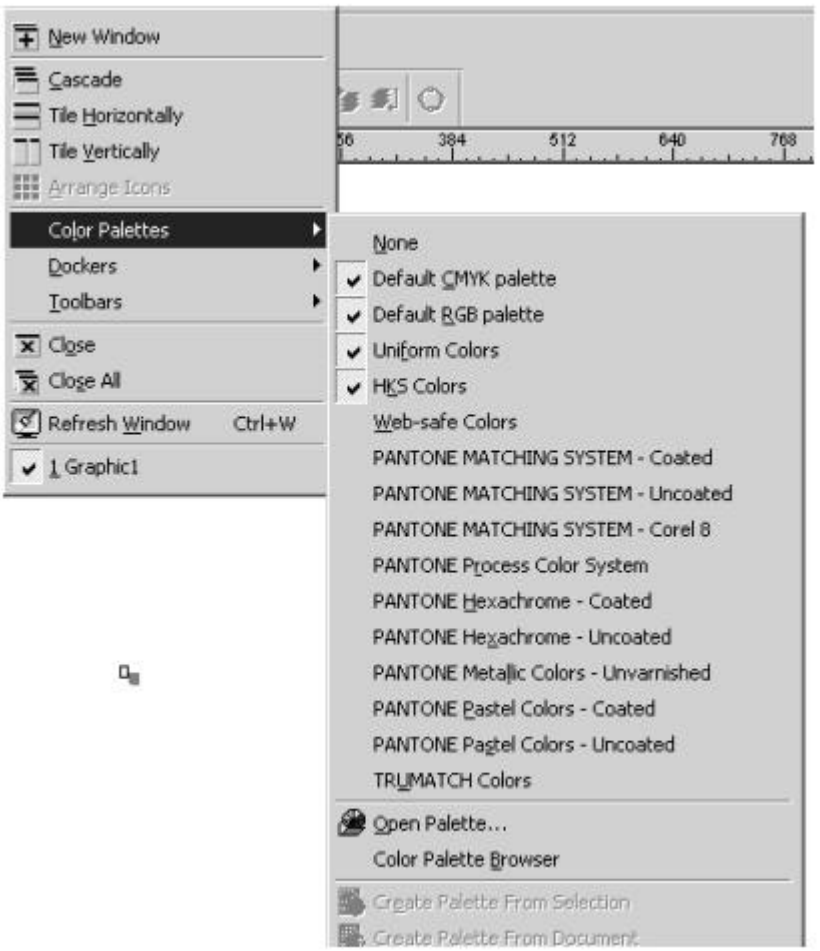
2.Click a color any open color palette



The color palette in three states: normal, expanded, and floating. To shrink the expanded palette, click the gray bar at the bottom. To dock the floating palette, double-click its title bar.

Using Color Palettes

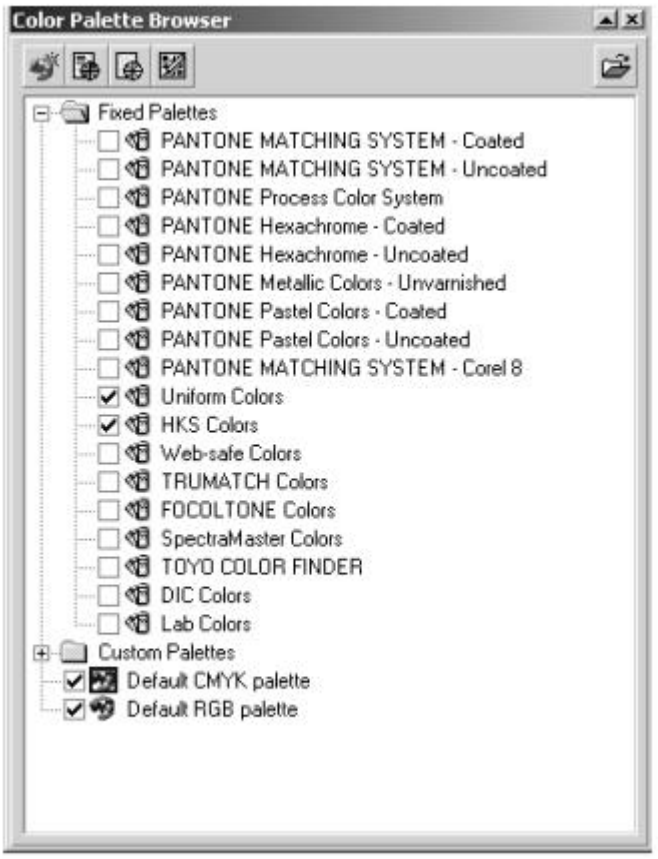
Although one color palette always appears when you run CorelDraw 10, there are more than 100 color sets and matching systems that you can display in the color palette. If you like. multiple color palettes can be used together. To open one of the more popular palettes (such as Web-safe Colors), choose Window> Color Palettes, followed by the name of the palette .



You can choose the most common palettes from the Color Palettes submenu.

To open any of the provided CorelDraw color palettes:

1. Choose Window> Dockers> Color Palette Browser. The Color Palette Browser docker opens, displaying a tree view with hundreds of different color palettes .



The entire set of color palettes is available in the Color Palette Browser

2. Expand the palette folders until you find the color palette you want to use.
3. Enter a checkmark beside the palette you want to use. The chosen palette appears to the left of the other palette(s) .

To close a color palette:

- Choose Window> Color Palettes, followed by the palette you want to close . Choosing a checked palette from this submenu removes its checkmark and closes the palette.

  Or

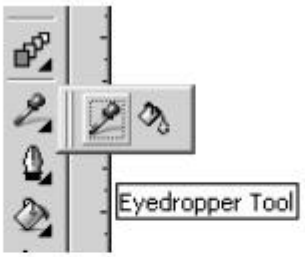
- In the Color Palette Browser, remove the checkmark from the palette's check box.

Using the Eyedropper and Paint bucket

The Eyedropper and Paint bucket tools work together to make adding color fil1s and out-lines quick and easy. You use the Eyedropper Tool to sample or pick up the desired color. pattern. or texture from an object that's already filled. Then you use the Paintbucket Tool to apply that color. pattern. or texture to a different object's outline or fill.

To sample a color:

1. Elect the Eyedropper Tool from the Eye- dropper flyout on the toolbox . The pointer changes to a small eyedroppe!: The property bar displays Eyedropper Tool icons .



The Eyedropper flyout holds the Eyedropper and Paintbucket Tools

Choose a mode for the Eyedropper Tool from these property bar icons.

2. Click one of the following icons on the property bar to set the sampling method: ... Fill/Outline. Click to sample the entire fill or outline of an object. For example. if the fill is composed of a pattern or texture. the entire pattern or texture is sampled. If the fill is a solid color. the sample will be that color:

- *Size*. Click to sample an area of a spe-cific size in pixels (Ix1. 3x3. or 5x5) and then combine the sampled colors.
- *Selection*. Marquee select an area using the Eyedropper Tool. combining the sampled colors.

3. On the document page, click the fill or outline in the object you want to sample. The color. pattern. or texture is displayed in the Fill box on the right side of the sta-tus bar .

To fill an object using the Paintbucket:

1. Make sure the object you want to fill has a closed path.
2. Select a color or pattern with the Eyedrop-per Tool.
3. Select the Paintbucket Tool from the tool-box .The pointer changes to a tiny paint bucket

Welcome to the jungle

As shown here, you can fill any object including text-with a color. Pattern, or texture.

4. Click the object you want to fill with the sampled color. pattern, or texture.The object fills with the color, pattern. or texture.

To fill an outline using the Paint bucket:

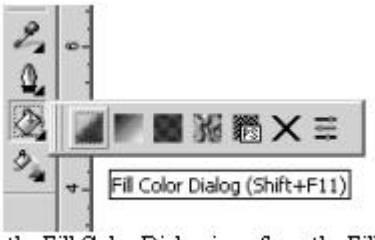
1. Select a color, pattern, or texture with the Eyedropper Tool.
2. Select the Paintbucket Tool from the tool- box .
3. Click the outline you want to color. The object's outline is set to the selected color.

The Uniform Fill Dialog Box

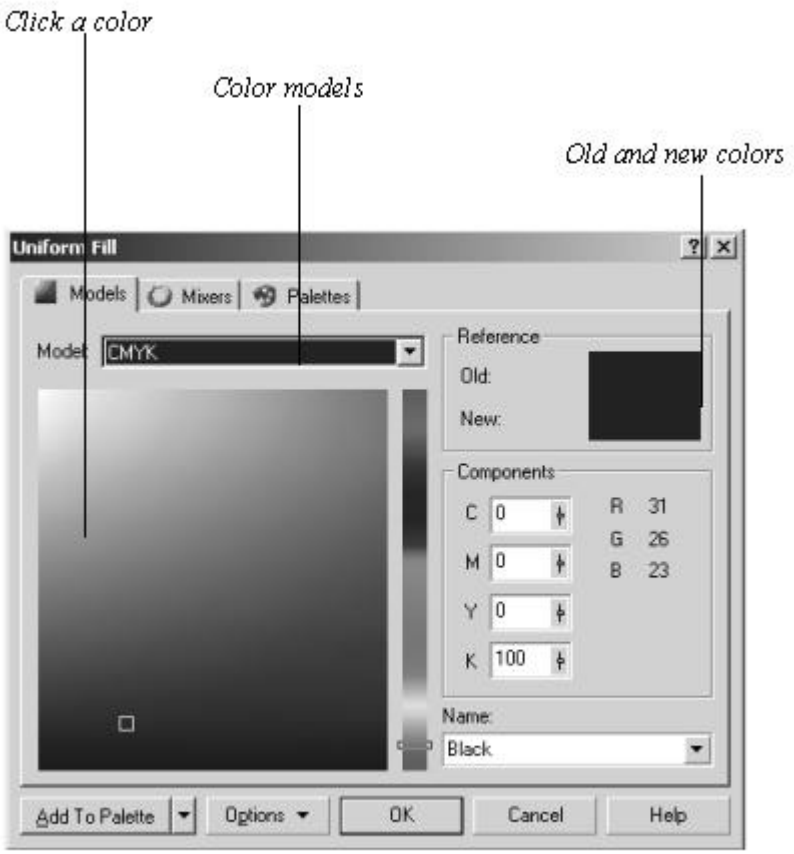
In addition to choosing fill colors from open color palettes. you can use the Uniform Fill dialog box to choose more precise colors or to create custom colors.

To use the Uniform FlU dialog box to flU an object with a color:

1. Select the object you want to fill with color.
2. From the Fill flyout in the toolbox. select the Fill Color Dialog or press Shlft F11.The Uniform Fill dialog box opens to the Models tab



Select the Fill Color Dialog icon from the Fill flyout.

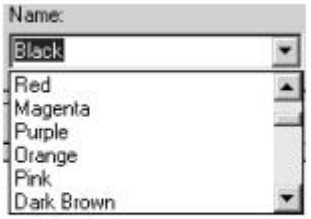


Select a fill color from the Models tab of the Uniform Fill dialog box.

3. Select a color model from the Model drop-down list. (For example. RGB and CYMK are commonly used color models.)

4. In the color selector. choose a color by performing any combination of the follow-ing actions:

- Drag the vertical slider so the desired shade of color is displayed in the large colored area. and then click to choose a color.
- Enter numeric values for the desired color in the three text boxes.
- Choose the name of a specific color (such as Red) from the Name list. The selected color appears beside New in the Reference area



You can also choose a basic color by its name.

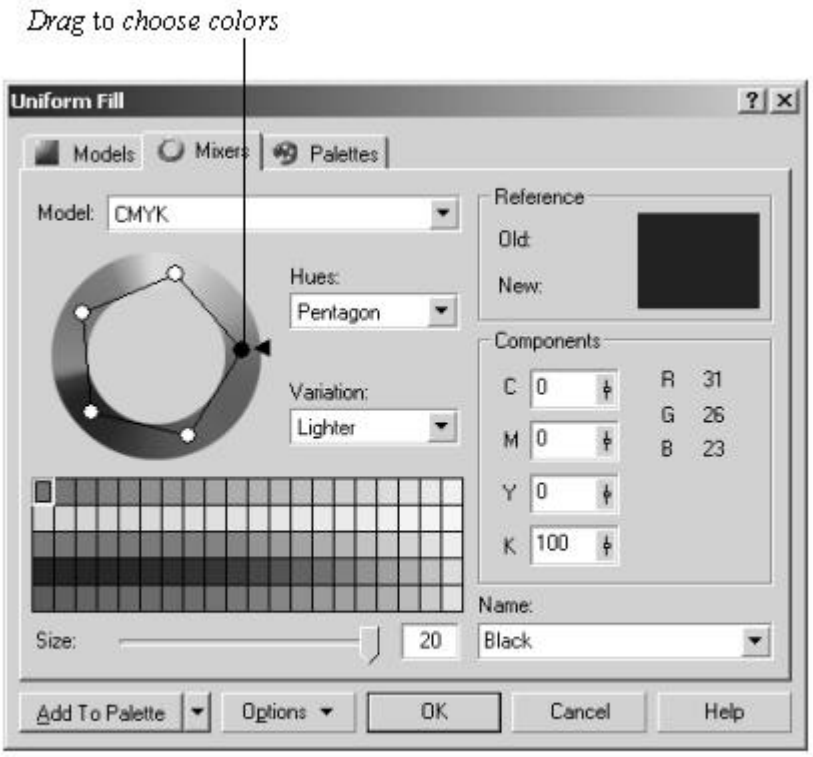
5. Click OK. The dialog box closes. and the object fills with the selected color.

.

To create a custom color:

1. Perform Steps 1 and 2 from the previous step list

2.. Click the Mixers tab .



Using the Mixers tab, you can choose complementary or harmonious colors.

3. Select a color model from the Model list.

4. Select an option from the Hues drop-down list to set the relationships of the colors on the grid below the color wheel. For instance. Complement displays two dots directly across from one another on the color wheel. When you select a color on the color wheel, the chosen and the complementary color are both displayed in the color grid.

5. To choose a color, drag the black dot on the color wheel until the color you want is shown beside New in the Reference area.

or

Click a colored rectangle in the color grid.

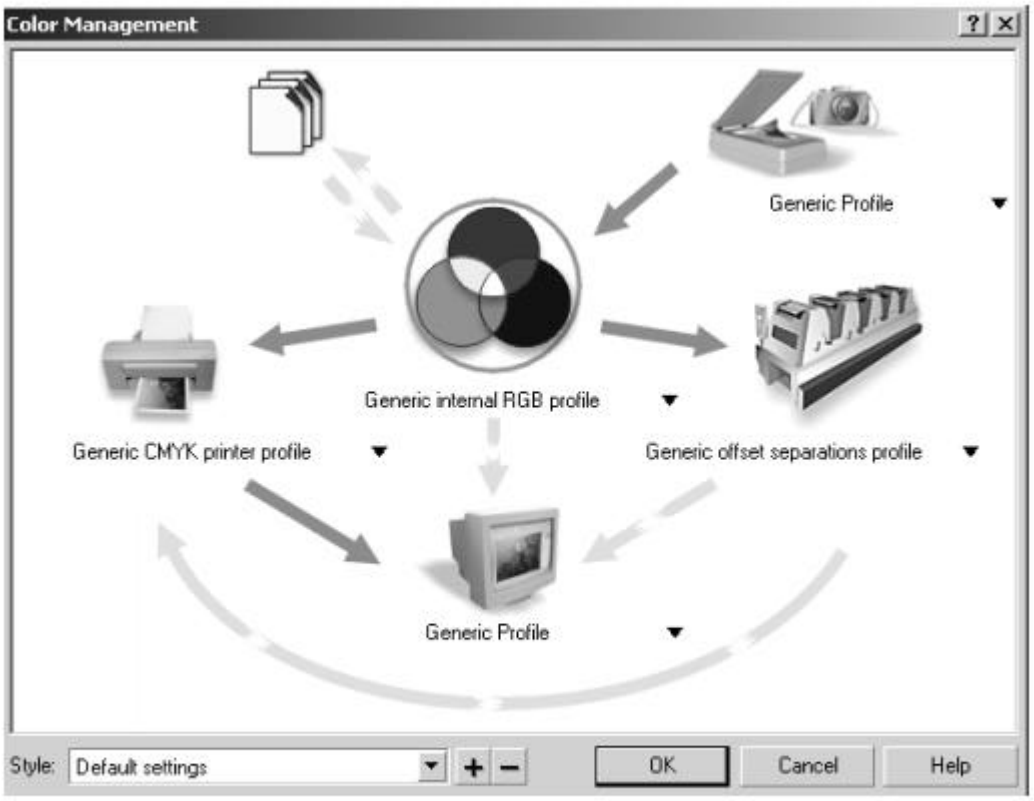
6. *Optional:* If you think you'll also want to use the color in other objects. you can add it to any open color palette. Click the down arrow beside the Add To Palette button. choose a color palette, and then click Add To Palette.

7. Click OK

The dialog box closes, and the selected object is filled with the custom color.

Color Management

If you're creating professional illustrations, it's critical that the colors you see onscreen pre-cisely represent what you'll see when you get the prints back from your service bureau. In fact, color management is all about matching colors on all devices involved in creating your drawings, such as a scanner, digital camera, monitor, desktop printer, and/or the service bureau's output device. Because color-printing errors are costly, CorelDraw provides color management tools to help you avoid them.



Set input and output device profiles in the Color Management dialog box.

To use the Color Management tool:

1. Choose Tools> Color Management. The Color Management dialog box appears .
2. Click the down triangle to the right of the device you want to configure.A drop-down list appears.
3. *Do one of the following:*

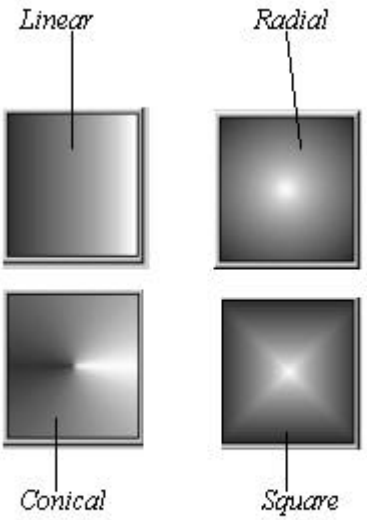
- If your device is listed, choose it.
- Choose Color ProfIles Online to see if a profile is available from Corers Web site. When

  you reach the site, click the link for *Tools-Color Profiles.*
- To check the CorelDraw software for the profile, insert Disc 1 into your CD-ROM drive and choose Get profile from disk. In the Browse for Folder dialog box , choose the *Corell Graphicsl 10\Color* folder on Disc 1 and click OK In the Install From Disk dialog box select the manufacturer and model number, and then click OK The chosen profile is installed and selected for you.

4. Repeat Steps 2 and 3 for any additional devices you want to configure.

Creating Fountain Fills

A *fountain fill* is a gradual blend between two or more colors across a closed path object. (Some programs call this a *gradient filL)* There are four types of fountain fills :



These are the four kinds of fountain fills.

- Linear. The blend of colors moves in a straight line.
- Radial. The blend of colors moves in con- centric circles from the center.
- Conical. The blend of colors moves in a circular path. radiating from the center.

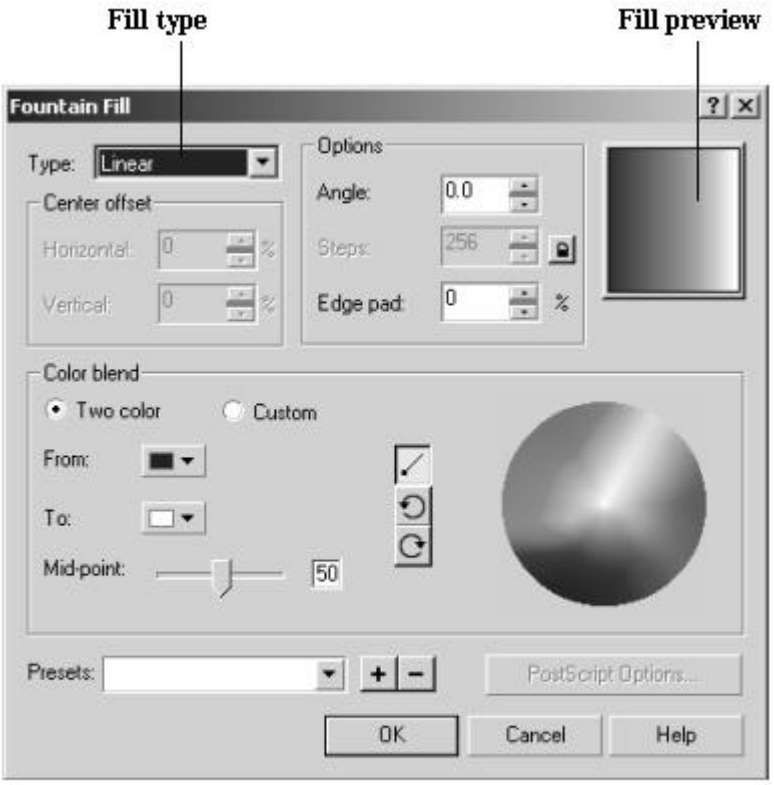
- Square. The blend of colors moves in a series of concentric squares that radiate from the center.

  You can create a fountain fill with these tools:
- **Fill Tool (Fountain Fill Dialog).** Create a fountain fill by setting options in a dialog box.
- **Interactive Fill Tool.** Create a fountain fill by setting property bar options. and then clicking and dragging within the object you want to fill.

To create a fountain fill with the Fountain Fill Dialog:

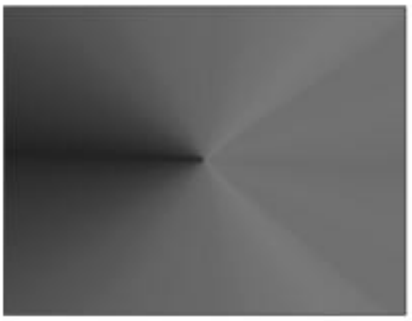
1. Select an object with a closed path.
2. From the Fill Tool flyout in the toolbox. select the Fountain Fill Dialog or press f11. The Fountain Fill dialog box appears .

Select the Fountain Fill Dialog from the Fill Tool flyout.



Set options in the Fountain Fill dialog box.

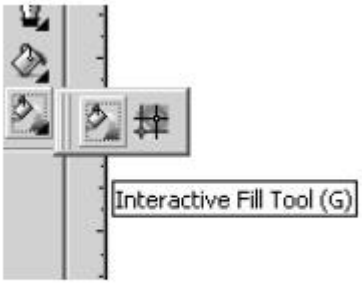
3. Select a fill type from the Type list.
4. Set other options. such as the start and end colors, the angle. and the midpoint.
5. Click OK The fountain fill is applied to the object .



A carefully chosen radial fill can transform a flat circle into a realistic ball.

To create a fountain fill with the Interactive Fill Tool:

1. Select the Interactive Fill Tool from the toolbox or press g.

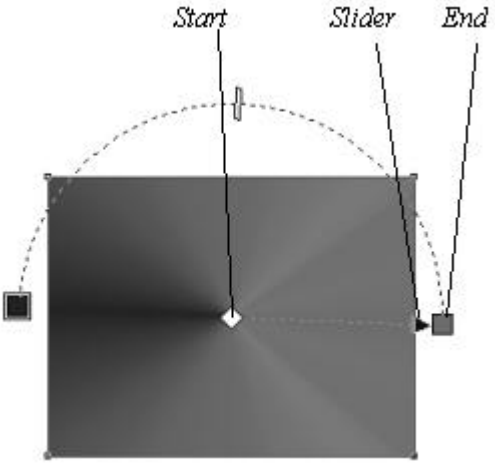


Select the Interactive Fill Tool from the toolbox.

2. Click to select an object with a closed path.
3. On the property bar , pick a fill type from the Fill Type drop-down list.

Select a fill type. as well as the start and end colors. from the property bar.

4. Choose start and end colors from the property bar.
5. Adjust the fill by dragging the slider, start handle, and end handle or by setting options on the property bar:



You can manually adjust the fill by dragging these three items

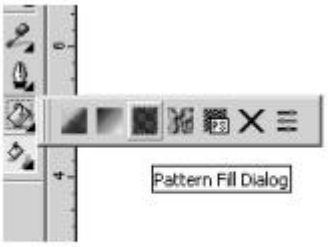
Adding Patterns to Objects

Patterns can add interesting effects to your graphics. There are three types of pattern fills: 2-Color. Full Color. and Bitmap. As was the case with fountain fills. there are two ways to add a pattern to an object: with the Fill Tool (Pattern Fill Dialog) or Interactive Fill Tool.

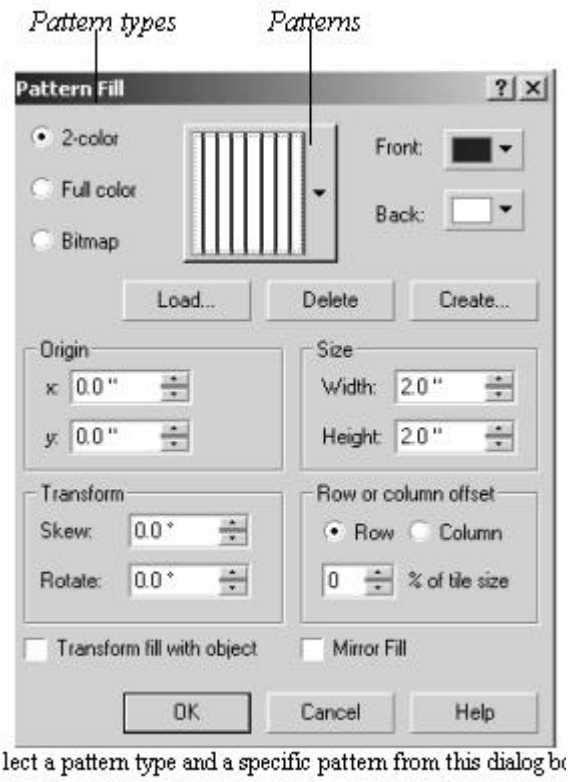
To add a pattern flU to an object with the Pattern FlU Dialog:

1. Select an object with a closed path.
2. From the Fill Tool flyout in the toolbox, select the Pattern Fill Dialog .

   The Pattern Fill dialog box appears .

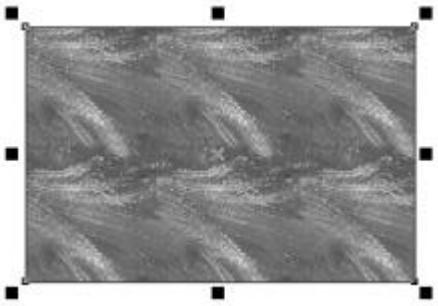


Select the Pattern Fill Dialog from the toolbox.



3. Select a pattern type by clicking one of the three radio buttons.
4. Choose a pattern by clicking the down arrow beside the pattern box..
5. Click OK

   The object fills with the selected pattern



This is an example of a bit-map pattern created in the Pattern Fill dialog box.

To add a pattern fill to an object with the Interactive Fill Tool:

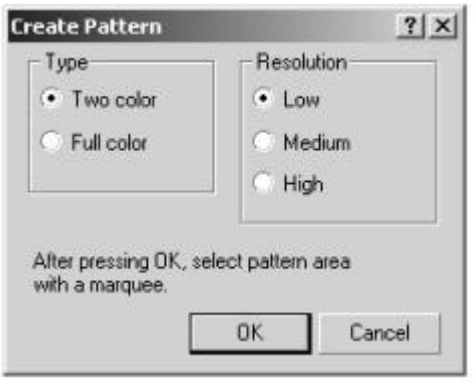
1. Select a closed-path object with the Inter- active Fill Tool.
2. Select one of the three pattern types from the Fill Type drop-down list on the prop-erty bar.

The object is filled with a default pattern of the chosen type.

3. To change the pattern. click the Pattern drop-down list on the property bar and select another pattern. The object is filled with the new pattern.

To create a custom pattern fill:

1. Create the object(s) you want to use as a pattern for the fill.
2. Choose Tools> Create> Pattern. The Create Pattern dialog box opens.



Select a pattern type and resolution from this dialog box.

3. If the pattern objects contain two colors or less, click the Two color radio button and then select a resolution.

or

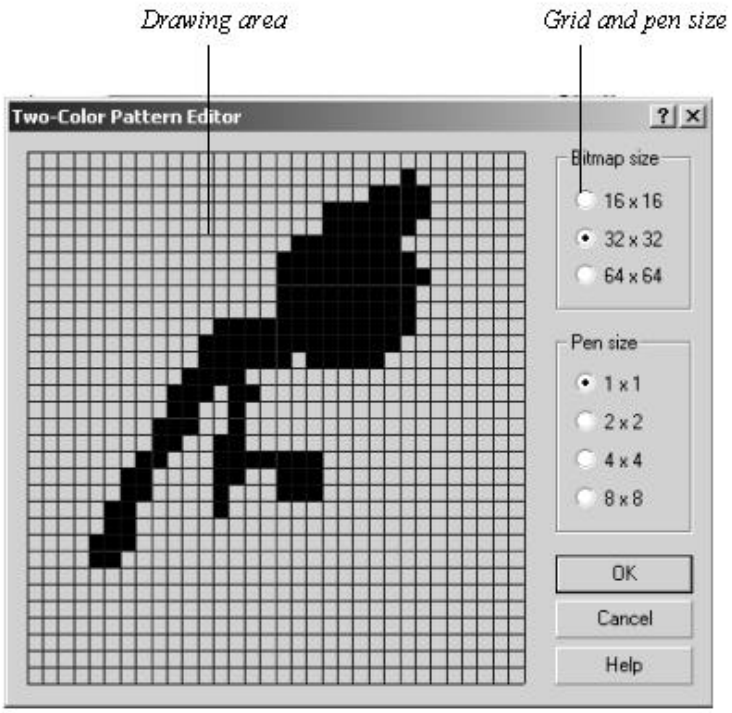
If the pattern objects contain many colors, click the Full color radio button.

4. Click OK

   Vertical and horizontal guides appear, attached to the tip of the pointer.
5. Drag a marquee rectangle to select a pat-tern
6 When you release the mouse button, CorelDraw asks you if you want to create a pattern from the selected area. Click OK
7. If it is a two-color pattern. the pattern is added to the other two-color patterns in the Fill drop-down list on the property bar.

or

If it is a full-color pattern. you are asked to name and save it as a pattern (.pat) file.



You can create your own two-color patterns by clicking and dragging in this window.

Adding a Texture Fill

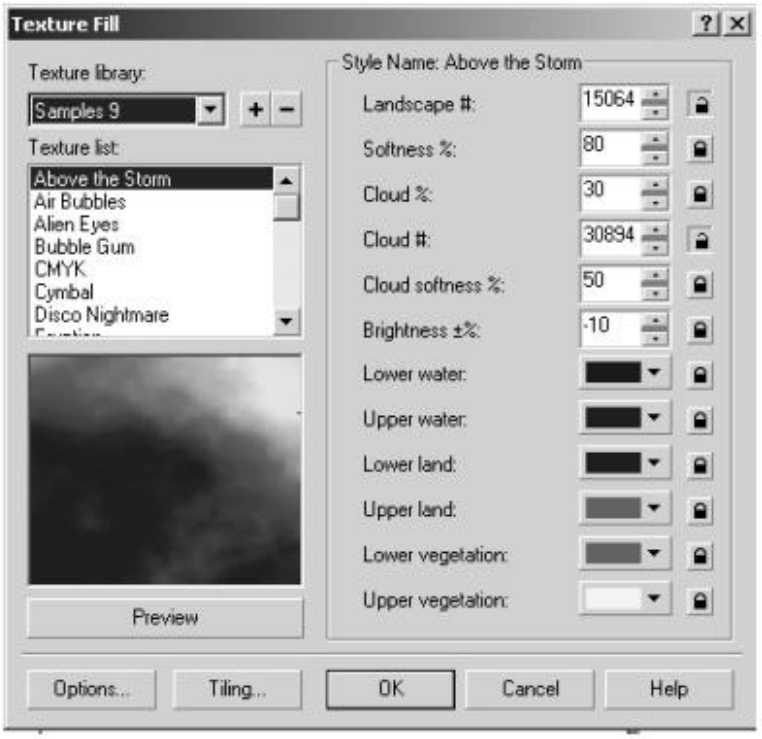
In addition to colors and patterns, you can use texture fills to create decorative. Visually inter-esting objects. CorelDraw 10 supports two types of textures: PostScript and normal.

To fill an object with a PostScript texture:

1. Select a closed-path object with the Inter-active Fill Tool .
2. Select PostScript Fill from the Fill Type drop-down list on the property bar:
3. Select a fill from the PostScript Fill Textures drop-down list on the property bar:

To fill an object with a normal texture:

1. Select a closed-path object with the Inter- active Fill Tool.
2. Select Texture Fill from the Fill Type drop- down list on the property bar.
3. Select a texture from the Fill drop-down list on the property bat:



Using the Texture Fill dialog box, you can modify every setting for a texture. Click the Preview button to see the effects of your changes.

LESSON 11
WORKING WITH TEXT

Working with Text

Pictures can be worth a thousand words, but sometimes you need actual words to convey a message. For instance, it's hard to imagine brochures or pamphlets without text.

There are two varieties of text in CorelDraw:

- *Artistic text* is generally used for single text lines (such as titles) or for text to which you want to add a special effect, such as fitting the text to a path.
- *Paragraph text* is used for blocks of text and text-intensive projects, such as ads, brochures, and newsletters.

Note that any text created in CorelDraw 10, whether artistic or paragraph, is a *text object*.

In this chapter, you'll learn how to perform the following text-related tasks:

- Add artistic and paragraph text to docu-ments
- Format text by changing fonts and sizes
- Change the spacing between characters and lines
- Convert between artistic and paragraph text .
- Import text into a document
- Make text flow between text frames, along a path, and into an object
- Add bullets to a list and create drop caps.

Adding Text to a Document

The following sections explain how to add artistic and paragraph text to a document, convert from one text type to the other, and edit the text.

To add artistic text to a document:

1. Select the Text Tool or press f8. The pointer changes to a cross-hair with a tiny "A attached to it.
2. Click where you want the artistic text to start. A vertical line called the *insertion marker* appears where you click.
3. Type the text.
4. When you are finished typing or pause while typing, handles appear around the text object. showing that it is selected.

To add paragraph text:

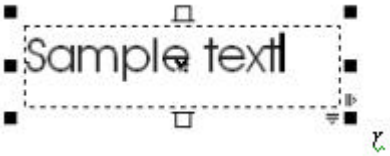
1. Select the Text Tool or press f8.

Select the Text Tool from the toolbox

2. Click where you would like the text to start and drag diagonally to create a text frame .When you release the mouse button. an insertion marker appears inside the frame. Handles surround the frame. and there are text handles at the top and bottom.

Click and drag to create a box that's the desired size for the text

3. Type the text .
4. When you are finished typing. select the Pick Tool. The ashed rectangle changes to a solid paragraph text frame..



This is an example of an artistic text object.

To convert artistic to paragraph text:

1. Select the artistic text object with the PickTool.
2. Choose Text> Convert To Paragraph Text or press Ctrl F8 . A paragraph text frame appears around the text.

To convert paragraph to artistic text:

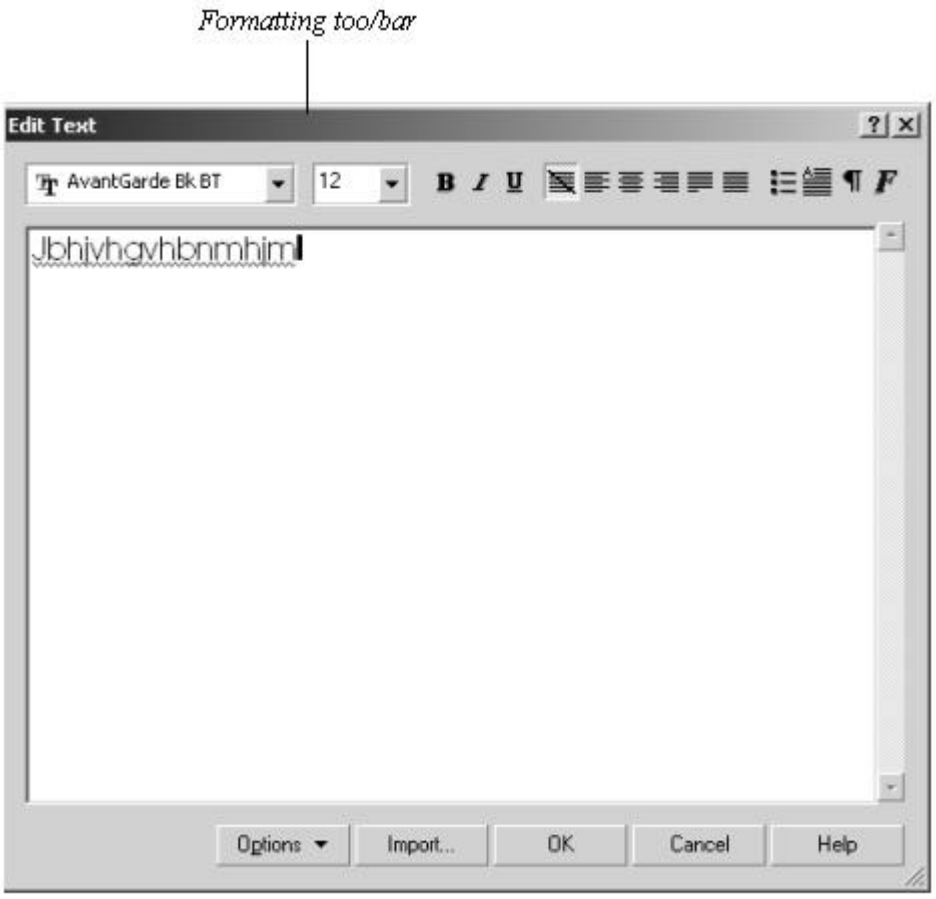
1. Select the paragraph text object with the Pick Tool.
2. Choose Text> Convert To Artistic Text or press Ctrl F8 . The paragraph frame disappears and the eight black handles remain.

To edit artistic or paragraph text:

- Set the insertion marker by clicking in the text block with the Text Tool. Edit the text.

  or

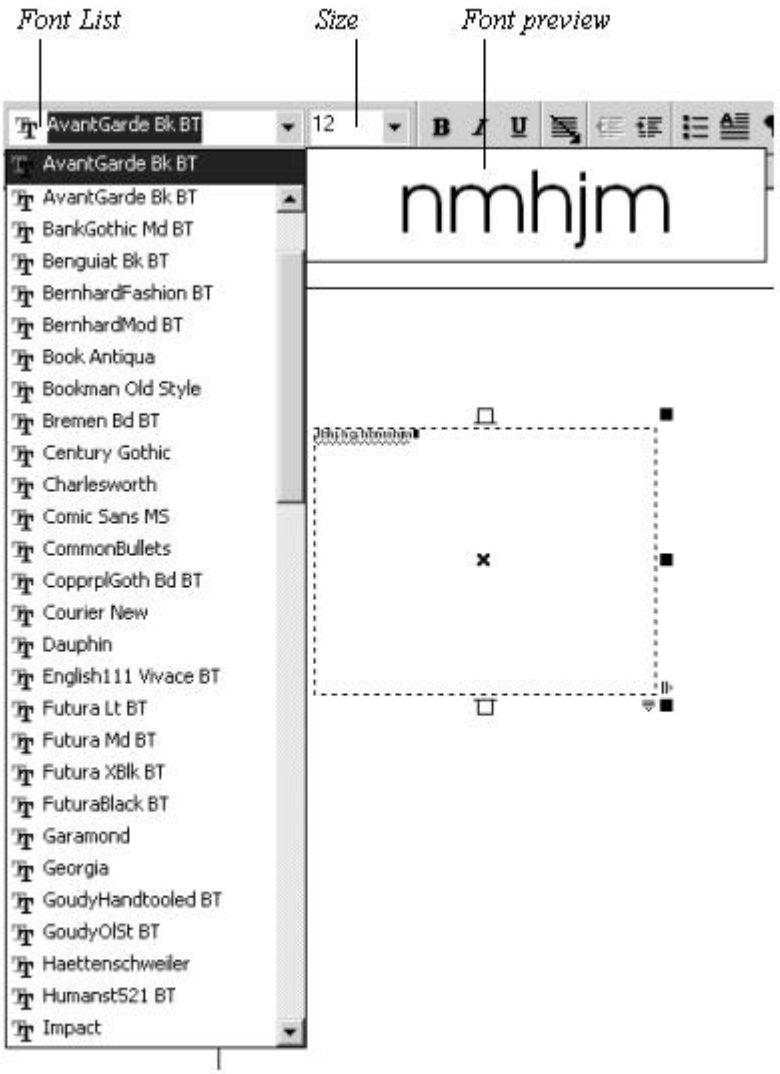
- Select the text object with the Pick Tool. Choose Text > Edit Text or press crtl shoft T. The Edit Text dialog appears (Figure 11.5). Edit the text in the window and click OK.



It's often more convenient to edit large text blocks in the Edit Text dialog box.

Formatting Text

When you add text, CorelDraw uses a default font (Avant Garde), font size (24 points), justi-fication (none), and character and line spacing (100 percent of character size). You can change any of these attributes by choosing new set-tings from the property bar or by opening the Format Text dialog box.



Select a font from this list. Note that all recently used fonts are listed separately at the top of the list.

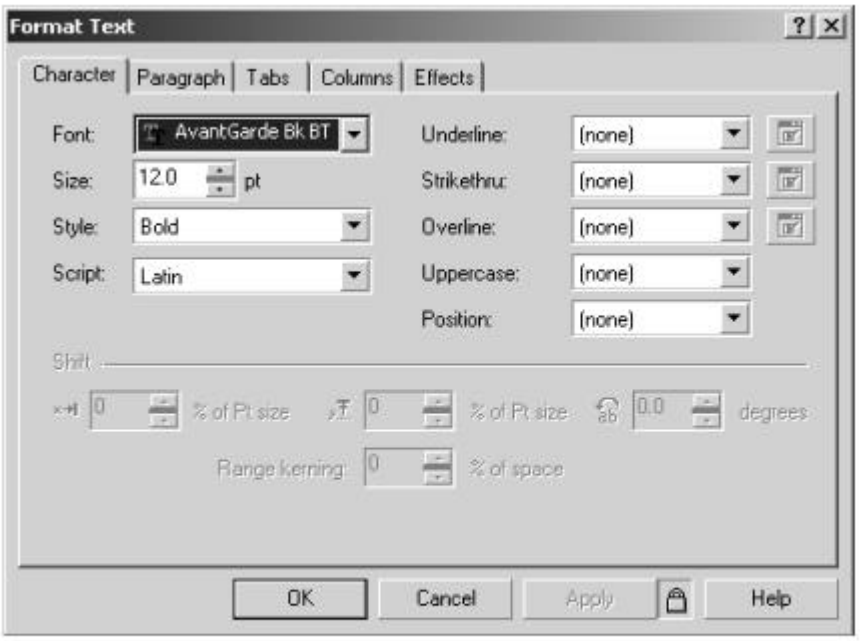
Character Formatting

Character formatting refers to any formatting that can be applied on a character-by-character basis, such as font, style, and size.

To apply a new font to a text object:

1. Select the text object with the Pick Tool.
2. Do *one of the following:*

- Choose a font from the Font List on the property bar .
- Choose Text> Format Text, press Ctrl T or click the Format Text icon on the property *bar.* The Format Text dialog box opens . On the Character tab, choose a font from the Font drop-down list and click OK . The text redraws in the new font. Note that the new font is assigned to every char-acter and word in the text block.



You can set the font, size, and/or style of a text block or selected text on the Character tab of the Format Text dialog box.

To change the font,size of a text object:

1. Select the text object with the Pick Tool.

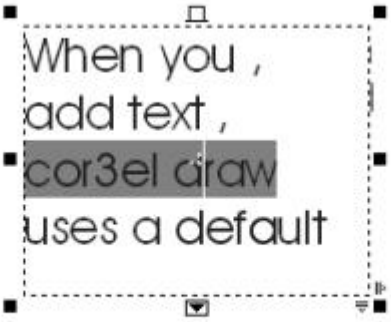
2. Do *one'of the following:*

- Choose or type a size in the Font Size List on the property bar . The default unit for type is *points;* there are 72 points per inch.
- Choose Text > Format Text, press I Ctrl cn or click the Format Text icon on the property bar The Format Text dialog box opens. On the Char-acter tab, choose or type a size in the Font Size drop-down list and click OK

To change the formatting of individual characters or words:

1. Select the Text Tool.

2. Select (highlight) the text that you want to format.



To format specific characters or words. select the text before applying the formatting. Unselected text will be unaffected.

3. Choose new formatting options from the property bar.

or

Make the desired changes in the Character Tab of the Format Text dialog box and dick OK

Paragraph formatting

Paragraph formatting is any type of format that affects an entire paragraph. such as align-ment. the amount of space before and after the paragraph. and indents. While it makes most sense to apply paragraph formatting to paragraph text. it can also be applied to artis-tic text.

To change paragraph alignment:

1. To set the alignment for an entire text object. select the object with the Pick Tool.

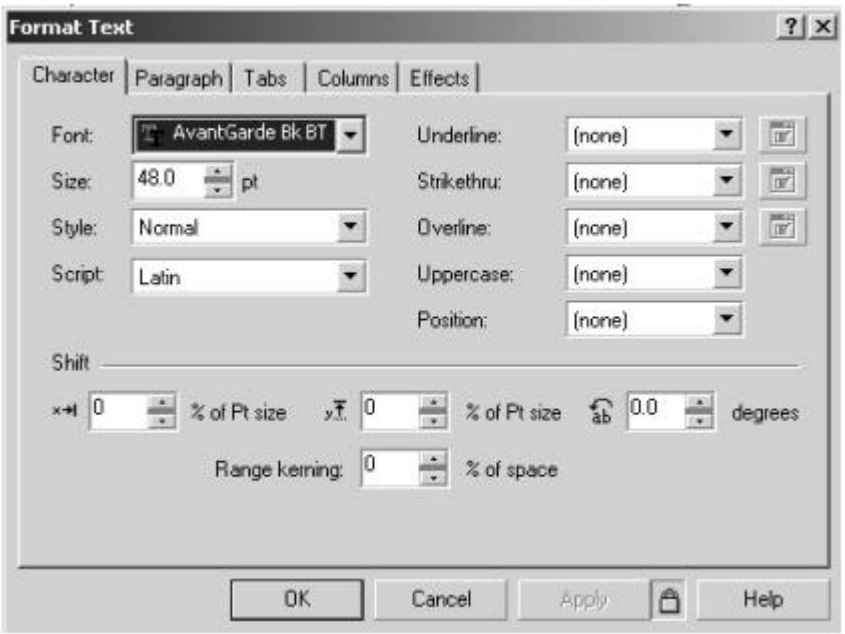
or

To set the alignment for selected para-graphs. place the insertion marker within the text block and select the paragraphs that you wish to format.

2. *Do one of the following:*

- Click the Horizontal Alignment icon on the property bar and choose an align-ment from the pop-up menu that appears .
- Choose Text> Format Text. Press Ctrl T. or click the Format Text icon on the property bar. The Format Text dialog box appears. Click the Paragraph tab . choose an align-ment from the Alignment drop-down list. and click

The selected text changes to assume the chosen alignment style

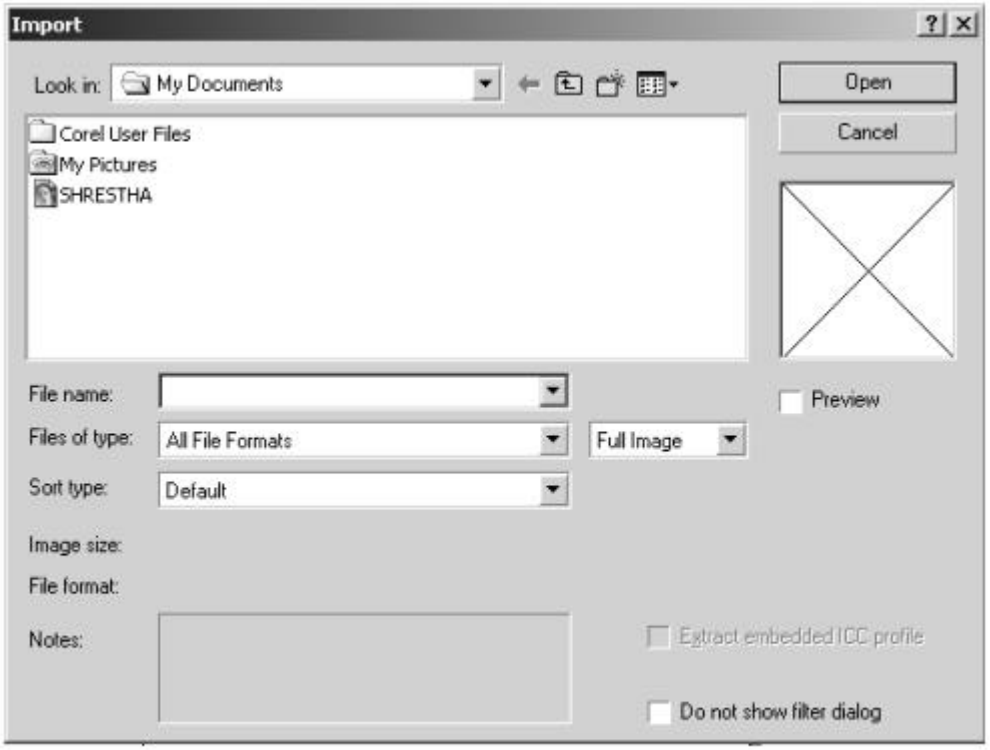


Importing Text

If you already have the text for a brochure or newsletter saved as a word processing docu-ment. there's no need to retype it into a CorelDraw project. You can *import* it into the project as paragraph text and manipulate it just as if you were using a page layout program.

To Import text into a project:

1. Choose File> Import or press ctrl I.. The Import dialog box appears ..
2. Navigate to the drive and folder that con-tains the document that you want to import. and select the file name.
3. Click Import. Depending on the type of document you are importing (such as a Word file), you may see a notice that the document is being converted. Then a special cursor appears .
4. Select the spot on the page that you want to serve as the upper-left corner of the text box and then click to place the text.The text appears in a single large text frame. You can work with it like you can any paragraph text object.



Select a text or word processing document and click the Import button.

Text Layout

CorelDraw 10 has many features that are more commonly found in page layout programs. You can have multiple linked text frames, enabling the text to flow from one to the other: If you
add or delete text from a linked paragraph text frame, the text will automatically adjust, flowing between the linked frames as neces-sary. This feature is commonly used in laying out multi-column newsletters. for example. You can also make text flow onto a path, flow into an object, or wrap around objects.

To flow text between paragraph text frames:

1. Create the paragraph text or import a text file, as explained previously.
2. Select the paragraph text object
3. If you reshape the text object so all the text isn't displayed, the bottom text handle displays as a text flow tab .
4. Click the bottom text handle. The pointer changes to a page symbol.
5. Position the mouse where you want the paragraph text to continue. Click and drag a new frame to receive the additional text. When you release the mouse button, the extra text from the first text frame flows into the new text frame .

Advanced text flow

In CorelDraw 10, you aren't restricted to merely flowing text from frame-to-frame. You can also flow paragraph text into a closed object (such as a circle or star), fit text to the path of an open object (such as a curved line), or make text wrap around an object.

To flow text into an object or onto an open path:

1. Create the paragraph text or import a text file, as explained previously,
2. Select the paragraph text object with the Pick Tool.
3. Resize the paragraph text frame so that a text flow tab appears at the bottom..
4. Click the text flow tab, and then move the pointer over the closed object that will receive the text or over the open path, The pointer changes to a large black arrow.
5. Click to flow the text into the object or onto the path.

To make text wrap around an object:

1. Make sure the object has a closed path.
2. Open the Object Properties docker by choosing Window> Dockers> Properties.
3. Select the object by clicking it or by press-ing TAB.
4. Click the General tab (the first one) in the Object Properties docker .
5. Select a wrap style from the Wrap para-graph text list, and enter an offset amount in the Text wrap offset box, (This the dis-tance the wrapped text will be offset from the object.). The text wraps around the object .

Embellishing Text

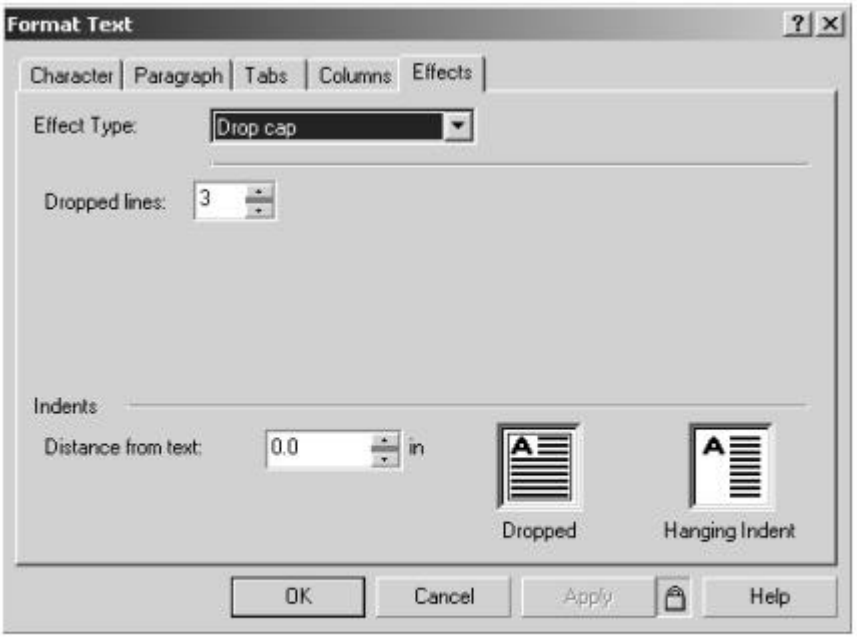
CorelDraw 10 provides many ways that you can embellish your text. Two of the more com-mon, useful embellishments are the addition of bullets and drop caps.

To add bullets to paragraph text:

1. Using the Text Tool. Highlight the para- graphs to which you want to add bullets.
2. Choose Text> Format Text, press Ctrl T). or click the Format Text icon on the property bar.
3. Click the Effects tab .
4. Select Bullet from the Effect Type drop-down list.
5. Choose a bullet style from the Symbol drop-down list. (If necessary, you can also choose a different font from the Font drop-down list.)
6. Set a point size for the bullet in the Size text box.
7. Enter a number in the Position text box to specify the distance that the bullet charac-ter will be indented from the text frame.
8. Click OK

To add a drop cap to paragraph text:

1. With the Text Tool, click to position the insertion marker at the beginning of the paragraph where you want to create the drop cap.
2. Choose Text> Format Text, press I GIrl ill. or click the Format Text icon on the prop-erty bar.
3. Click the Effects tab .
4. Select Drop cap from the Effect Type drop- down list.
5. In the Dropped lines text box, set the num-ber of lines of text that the cap will drop.
6. To set a style for the drop cap, click the Dropped or Hanging Indent icon. The icons show how the drop cap will be formatted in relation to the paragraph text.
7. Click OK



Set drop cap options on the Effects tab of the Format Text dialog box

LESSON 12
TEXT SPECIAL EFFECTS

Text Special Effects

You learned how to add and format text. This chapter takes text a step further, turning it into a design element. You will learn how to do the following:

- Skew and rotate text objects
- Create shadow text
- Fit artistic text to a path
- Add bevels and extrusions to text with the Interactive Extrusion Tool
- Create neon text

Skewing and Rotating Text

To *skew* an artistic text object. you slant it vertically or horizontally. To *rotate* an artistic text object. you spin it around a central point (called the *center of rotation marker).* There are two ways you can skew or rotate text:

- Drag a skewing or rotation handle with the Pick Tool
- Click and drag using the Free Skew Tool or the Free Rotation Tool

Using the Pick Toot

The skewing and rotation handles become visible when you double-click any object with the Pick Tool. The *skewing handles* are the arrows in the center of each side of the object. The *rotation handles* are the curved arrows in the corners. Rotation and skewing are both measured in degrees.

To skew text:

1. Double-click an artistic text object with the Pick Tool. Skewing and rotation handles appear around the object.

Double-click an artistic text object to display the $kewing and rotation handles.

2. To skew the text horizontally. drag the top or bottom skewing handle to the left or right .

or

To skew the text vertically. drag the left or right skewing handle up or down .As you drag. a blue outline of the text char-acters is displayed.

Drag the top or bottom skewing handle to skew the text horizontally.

3. Release the mouse button to complete the skewing process.

To rotate text:

Drag the left or right skewing handle to skew the text vertical.

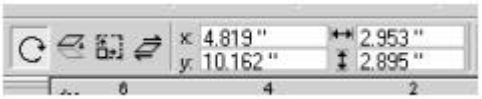
1. Double-click the artistic text object with the Pick Tool.The rotation and skewing handles appear . At the center of the text object is a circle with a dot in its center. This is the center of rotation marker.
2. Drag a rotation handle clockwise or coun-terclockwise. As you drag. a blue outline of the text char-acters is displayed.
3. Release the mouse button to complete the rotation process

double-click an artistic text object.

you can rotate artistic text to any angle

Using the Free Transform Tool

Another way to rotate and skew text is to use the Free Transform Tool . The Free Transform Tool works in conjunction with property bar icons to give you access to the Free Rotation. Free Angle Reflection. Free Scale. and Free Skew Tools.



Select the free transform tool from the toolbox .you must set a specific tool to be used in conjunction with it by clicking a property bar icon.

To skew text with the Free Skew Tool:

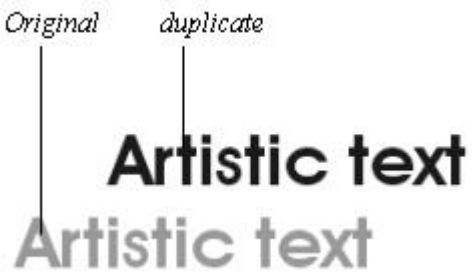
1. Select the Free Transform Tool from the Shape Tool flyout.
2. Click the Free Skew Tool icon on the prop-erty bar .
3. Click the object to select it, and then drag left. right. up. and/ or down .
4. When you attain the desired skew. release the mouse button.

To rotate text with the Free Rotation Tool:

1. Select the Free Transform Tool *from* the Shape Tool flyout .
2. Click the Free Rotation Tool icon on the property bar .
3. Click the object where *you* would like the center of rotation to be and drag in the direction *you* wish to rotate .A dashed blue line appears, showing the angle *from* the center of rotation. A blue outline version of the text rotates as *you* drag the mouse.
4. Release the mouse button when *you* are done rotating the text.

Creating Drop Shadows

Shadows give the impression of three dimen-sionality. There are many ways to create drop shadows with CorelDraw 10. The first method described here uses duplication to make shad-ows. The second method uses the Interactive Drop Shadow Tool.



Duplicate the text and change the color of the original text to make it the shadow.

Drag the duplicate onto the original, offsetting it slightly to create the shadow effect.

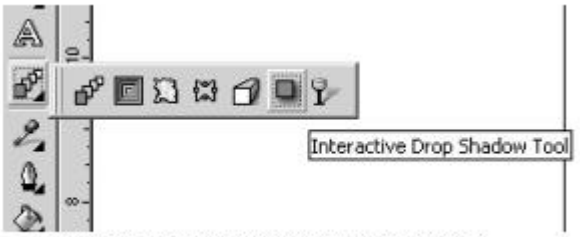
To create text shadows via duplication:

1. Create some artistic text and format it with your favorite font.
2. Select the text object with the *Pick* Tool.
3. Make a copy of the text by choosing Edit>Duplicate or pressing Ctrl D.A duplicate appears. above and to the right of the original text object.
4. Change the color of the original text object by selecting it and left-clicking a color well in the color palette .Light gray is a good choice since this text will become the shadow.
5. Select the duplicate and drag so that it is slightly offset from the original .The amount and direction of the offset depend on the lighting effect you want to emulate.

To create shadows with the Interactive Drop Shadow Tool:

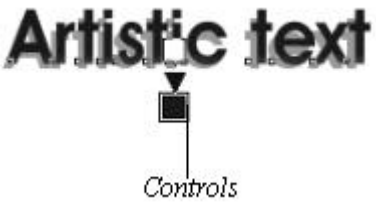
1. Select the Interactive Drop Shadow Tool from the Interactive Tool flyout in the toolbox .

   The pointer changes to a small rectangle with a drop shadow attached to it.



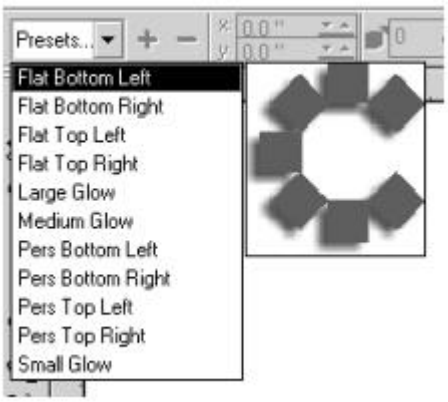
Select the Interactive Drop Shadow Tool.

2. Select the text object to which you want to add a drop shadow.
3. Click near the center of the text object and drag in the direction you want the drop shadow to appear.
4. If you want to change the drop shadow's visibility, move the slider bar on the drop shadow arrow . To change the direction or distance of the drop shadow from the text, drag the black box.



To change the features of the drop shadow, you can manipulate the controls.

5. Release the mouse button.



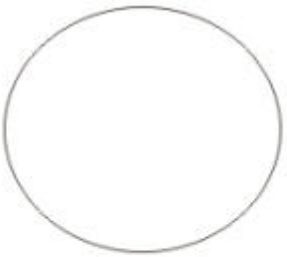
You can select a preset shadow style from this drop-down list on the property bar.

Fitting Text to a Path

Fitting text to a path refers to binding a line of text to the path of an object. As the text moves along the object's path. it assumes the shape of the path. You can fit text to a path interactively or choose a command from the Text menu.

To interactively fit artistic text to a path:

1. Using the Pick Tool. select the object to which you want to fit the text. The object must either have a closed path or be a line.
2. Position the Text Tool on the object's path. The cursor changes from the Text Tool's normal cross-hair to an I-beam.
3. Click to place the insertion marker at the desired starting point on the object or line.



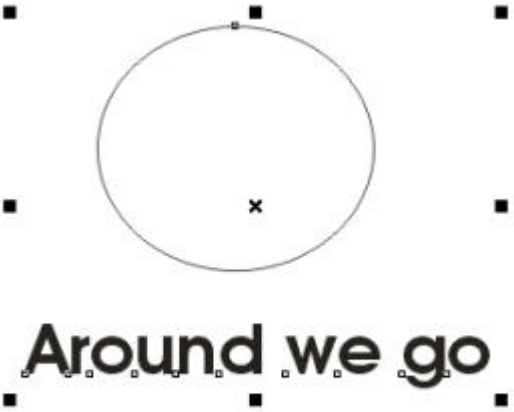
Click on the object's path to set the insertion marker.

type the text

4. Choose a font and size from the property bar drop-down lists.
5. Type the text. As you type. the text follows the object's outline .

To fit existing text to a path:

1. Create an object to which you want to fit the text.
2. Create some artistic text, choose a font, and set its color. pattern, or texture.
3. Select both objects either by Shift - clicking or by dragging a marquee with the Pick Tool.



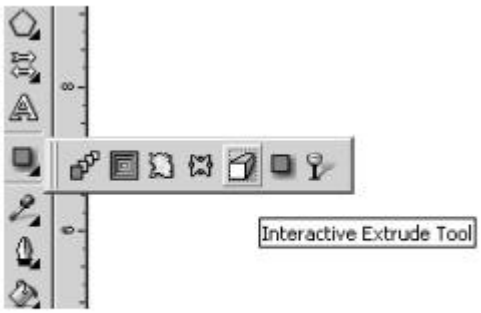
Select both objects.

Choose the Text> Fit Text To Path command.

4. Choose Text> Fit Text To Path. The text redraws. Following the object's path.

Extruding Text

Extruding gives a two-dimensional object the appearance of three dimensions. You use the Interactive Extrude Tool to create vector and bitmap extrusions.



Select the Interactive Drop Shadow Tool.

A *vector extrusion* is created by projecting points from the edges of a two-dimensional object and joining them to converge toward a vanishing point . The illusion of depth is created by the addition of objects on top of the original (or *control object),* the two-dimensional object that has been extruded. After creating a vector extrusion, bevels, fills and ambient lighting can be added to enhance the effect .

This is an example of a bitmap extrusion.

This is the final extruded object with a bevel, fill, and lighting.

Creating a *bitmap extrusion* lets you work with a three-dimensional object, rather than a two-dimensional object with other objects placed on top of it. When a bit-map extrusion is rendered, bevels, ambient and spot lighting, and texture fills can be added to the object. The object can also be rotated in three dimensions, letting you view it from any side or angle.

To create a vector extrusion:

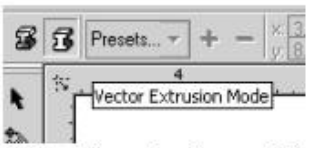
1. Select the Interactive Extrude Tool from the toolbox.
2. Click the Vector Extrusion Mode icon on the property bar.
3. Select the text object you want to extrude.
4. Position the mouse pointer near the center of the text object.
5. Click and drag in the direction you want the extrusion to go .A red and blue 3D rectangle appear and help you place the extrusion.
6. Adjust the extrusion as needed by clicking and dragging the extrusion controls.

To color the extruded portion of the text:

1. Select the extruded object with the Inter-active Extrude Tool.
2. Click the Color icon on the property bar. The Color box appears .
3. Click one of the three color fill icons:

- Use Object Fill. Click to apply the origi-nal object's fill color to the extrusion.
- Use Solid Color. Click to select a solid fill color for the extrusion.
- Use Color Shading. Click to apply a two-color fountain fill to the extrusion. Choose

the two colors from the From and To drop-down palettes.



click the vector extrusion mode icon

Drag to create the extrusion.

This is the extruded text.

This text had a fountain fill applied to the extrusion and a solid color (uniform fill) applied to its face.

To add a color, pattern, or texture fill to the face of a vector extrusion:

1. Select the Interactive Fill Tool from the toolbox or press G.
2. Select a fill type from the Fill Type drop- down list on the property bar.
3. Depending on the fill type chosen. follow the directions for applying the fill.

   After you make a selection. the face of the object fills with the color. pattern. or tex-ture .

To bevel the face of a vector extrusion:

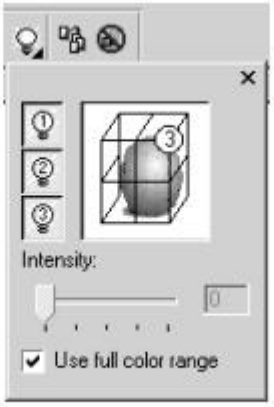
1. Select the extruded object with the Inter-active Extrude Tool.
2. Click the Bevel icon on the property bar: The Bevel box appears.
3. Check the Use Bevel check box.
4. *Optional:* Since the bevel is only applied to an extruded object's face. you may want to check the Show Bevel Only check box.
5. Set the bevel's thickness and angle by entering numbers in the two text boxes or by clicking and dragging the dot in the preview box.
6. .Close the Bevel box to complete the draw-ing .

To add lighting effects to an extruded object:

1. Select the extruded object with the Inter-active Extrude Tool.

Begin by selecting the extruded object with the Interactive Extrude Tool.

2. Click the Lighting icon on the property bar.The Lighting drop-down box appears



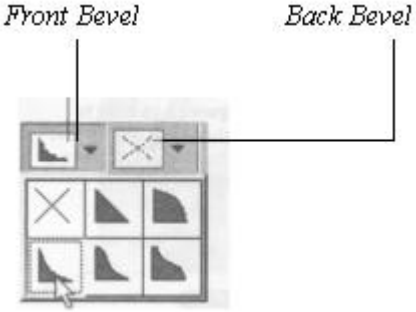
Specify lighting settings in this drop-down box.

3. Click the light bulb #1 icon to turn that light on. A dot with a "1" in its center appears in the preview area.
4. Drag the dot to the position on the grid where you want the light. As you make changes to the lighting, the extrusion's lighting changes.
5. Move the Intensity slider bar to set the light's brightness.
6. To add more lighting, click the other light bulb icons and repeat Steps 4-5.
7. When you are satisfied with the lighting. close the Lighting box .

Lighting can produce dramatic effects.

To bevel a bitmap extrusion:

1. Select the bitmap extrusion with the PickTool.



Select bevel styles for the front and/or back of the object.

2. Select bevel styles from the Front Bevel and/ or Back Bevel drop-down boxes on the property bar.
3. To set the bevel width and angle, click the Bevels icon on the property bar, and enter the desired numbers in the text boxes.

   You can vary the bevel width and angle in the Bevels box.

4. Close the Bevels box. The bevel appears on the object .

LESSON 13
OBJECT ARRANGEMENT

Object Arrangement

It's amazing what you can do with a few clicks of the mouse. Many of the commands in the Arrange menu (group, combine, lock. transfor-mations, and shaping) are among the most powerful and easy to use tools in CorelDraw.
In this chapter, you'll learn about these impor-tant Arrange commands, as well as how to accomplish many key object transformations using the Transformations docker.

Grouping Objects

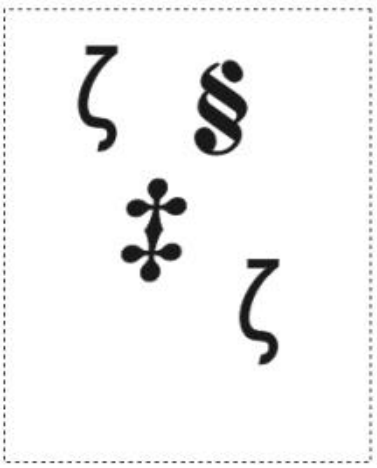
Grouping objects binds them together so you can manipulate them as a unit. For instance, if you want to move several objects yet keep them in the same positions relative to each other, you could group the objects and then move them as a unit. Formatting applied to a group also affects all objects in the group. You could add a blue fill
to all objects in a group by selecting the group and clicking a blue shade on the color palette. If you later need to work with the individual objects that make up the group, you can sim-ply *ungroup* them.

To group objects:

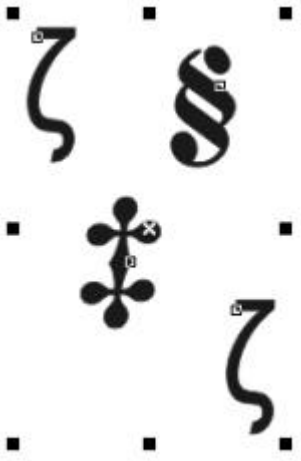
1. Using the Pick Tool, select two or more objects.To select multiple objects, you can hold down Shift while clicking the objects, or you can drag a marquee around the objects .
2. Choose Arrange> Group or press Ctrl G. The next time you select the grouped objects, you'll notice that the handles now appear around the group rather than the individual objects.

To ungroup objects:

1. Using the Pick Tool, select the grouped objects.
2. Choose Arrange> Ungroup or press Ctrl D.



One way to select objects for group-ing is to drag a selection rectangle (called a *marquee)* around them.



When you select a group, it is surrounded by a single set of handles

Locking Objects

Locking an object prevents it from being moved or altered in any way. This feature is especially handy when used in conjunc-tion with a complex drawing. The objects that you've completed or don't want to alter by mistake can be locked, leaving the remaining objects available for selection and editing.

To lock an object:

1. Use the Pick Tool to select the object(s) that you wish to lock.
2. Choose Arrange >.Lock Object.The handles of the object(s) change to tiny padlocks.

If you want to modify a locked object, you must first unlock it.

To unlock an object:

1. Select the locked object or objects with the Pick Tool.
2. Choose Arrange> Unlock Object.

Combining and Breaking Objects Apart

When you *combine* objects. lines and shapes fuse to create new shapes. Any overlapping areas are removed. creating *clipping holes* that let you see what's underneath.
You can use the Combine command to create a black/white graphic effect in which half the drawing is white on black and the other half is black on white.

To create a black/white graphic:

1. Create a closed-path object and fill it with black .
2. Use the Rectangle Tool to draw a rectangle that covers the right half of the graphic
3. Fill the rectangle with black The rectangle obscures the graphic beneath.
4. Using the Pick Tool. drag a marquee to select both objects.

5. Choose Arrange> Combine or press Ctrl L.The half of the graphic covered by the rectangle becomes a cutout.
6. Finish the drawing by creating a matching rectangle for the left side of the image. Send it to the back (press Shift Pg Dn and. fill it with white.

Create a closed path object.

Draw a recto angle that covers half of the object.

Apply Combine so that the half covered by the rectangle becomes a cutout.

To complete the drawing, fill a second rectangle with white and send it to the back

A textured square placed behind the drawing adds visual interest.

You can also use the black/white technique to create interesting text effects.

Breaking objects apart

Just as there are commands to reverse the effects of Group and Lock, you can use the Break Apart command to separate objects that have been fused with Combine.

To break objects apart:

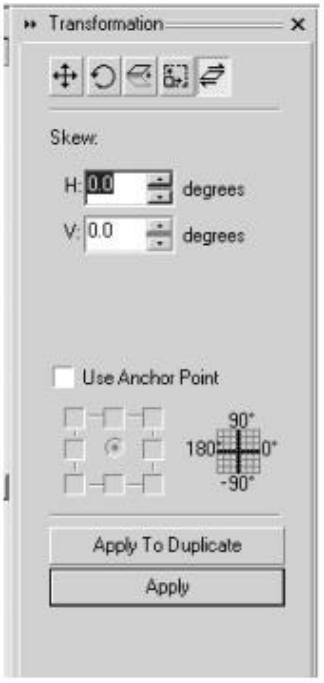
1. Select the combined objects.
2. Choose Arrange> Break Apart or press Ctrl k.

   The objects resume their original shape. and you can now work with them as sepa-rate objects.

Transforming Objects

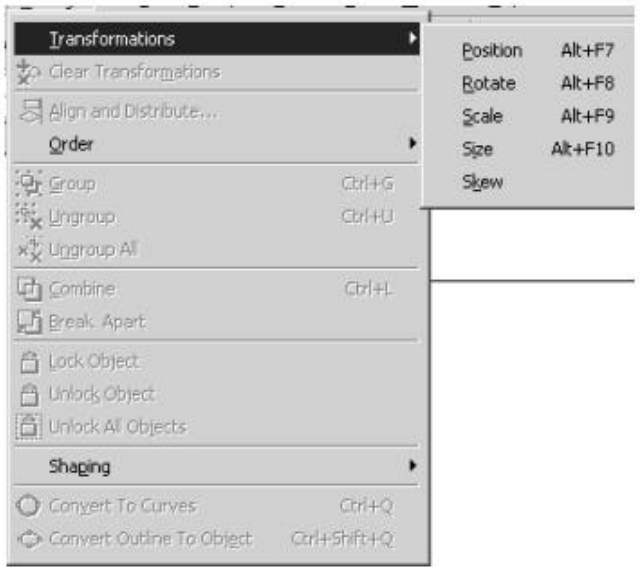
The Transformations docker has options for setting the position. rotation angle. scale, size, and skew of objects. These transformations can also be performed using the Transform toolbar .

Use the Position tab of the Transformations docker to precisely set an object's place onscreen.



To open the Transformations docker. choose Window> Dockers> Transformations, fol-lowed by any of the five tab names, such as Position or Size. Or you can open it by choos-ing a command from the Transformations submenu . The docker opens to the chosen component.

To open the Transform toolbar. choose Win-dow > Toolbars > Transform. The Transform toolbar floats and can be dragged by its title bar to any onscreen location.



Or you can use the Transformations submenu.

Positioning an object

On the Position tab of the Transformations docker . you can set a selected object's exact screen position or move it rela-tive to its current position. You can optionally create and move a *duplicate* of the selected object, rather than the original.

To set an object's new screen position:

1. Select the object you wish to move.
2. To change the object's position to match the ruler coordinates, remove the Relative Position checkmark and enter new (H) horizontal and/or (V) vertical coordinates.

or

To move the object relative to its current position, check the Relative Position check box and enter the (H) horizontal and/or (V) vertical distance you want to move the object .

3. Click Apply to move the object to the new position, or click Apply to Duplicate to move. a copy of the selected object to the new position.

Rotating an object

You learned how to use the rotation handles and the Free Transform Tool to rotate a text object. You can use the same techniques on any object or group of objects in conjunction with the Rotate tab of the Transformations docker.

To rotate an object:

1. Select the object to be rotated.

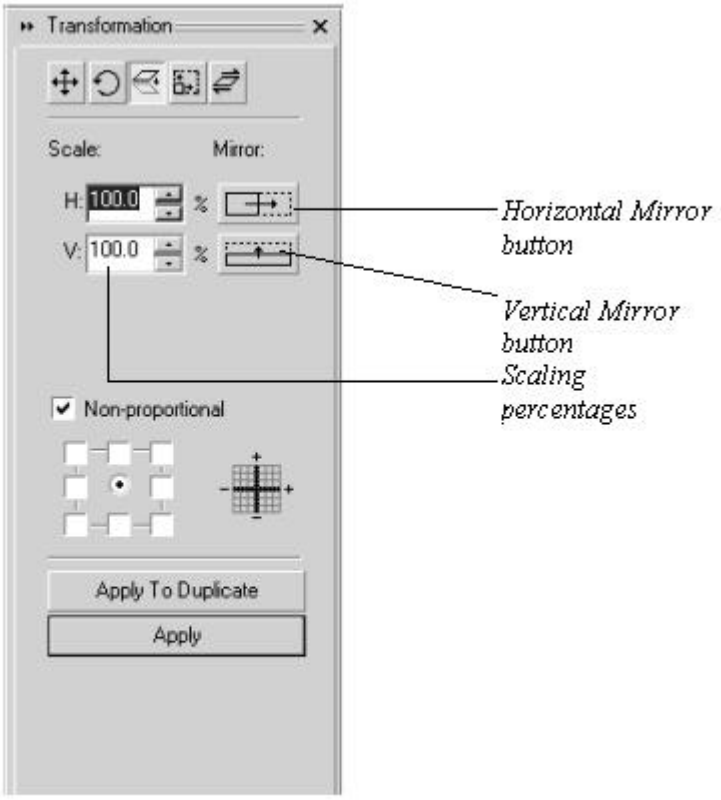
Select an object to rotate.

2. In the Angle text box, enter the number of degrees you want to rotate the object. (Negative numbers rotate clockwise; posi-tive numbers rotate counterclockwise.)
3. If you want to use one of the object's handles as the *anchor point* around which the object will be rotated (rather than rotating it around the object's center), click the check box that corresponds to the new anchor point.
4. Click Apply to rotate the selected object , or click Apply To Dupli-cate to rotate a copy of the selected object.

The object has been rotated -45 degrees (clockwise)

Scaling an object

Scaling an object makes its vertical. horizon-tal, or both dimensions larger or smaller. you learned how to scale an object by dragging a handle. However. you can use the Scale and Mirror tab of the Transforma-tions docker to scale objects with greater accuracy.



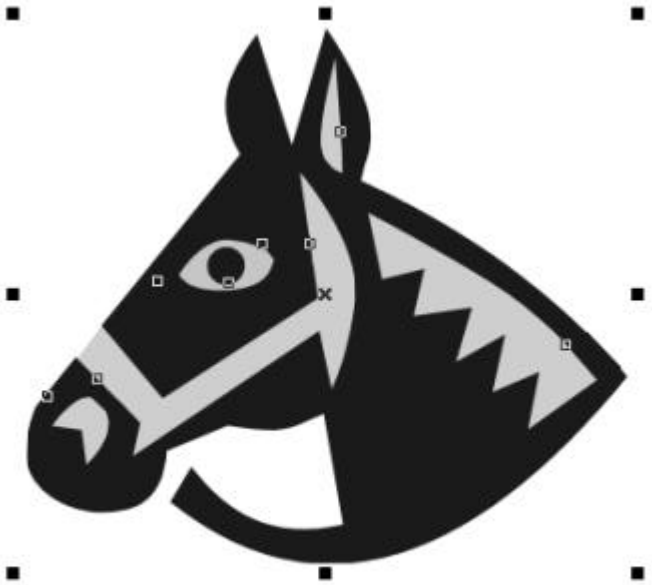
Use the Scale and Mirror tab to resize or flip an object.

To scale an object:

Select the object you want to scale.

Select an object-to scale.

2. In the H and V text boxes. enter the hori-zontal and/or vertical percentages by which you want to scale the object. An entry of 100 represents the object's current size. 50 would be half. and 200 would be double.
3. To proportionately change the object's horizontal and vertical scale. remove the checkmark from the Non-proportional check box.
4. Click Apply to scale the selected object or c1ick ApplyTo Dupli-cate to scale a copy of the selected object.



The object has been scaled by 200 percent.

Mirroring an object

Mirroring an object flips it vertically. horizon-tally. or in both directions. You can mirror objects by dragging a center handle or using the Scale and Mirror tab of the Transforma-tions docker .

To mirror an object manually:

1. Select the object to be mirrored. Eight black handles appear around the object.

By dragging the right-center handle to the left.....

2. Press Ctr1 while dragging the left-center or right-center handle in the opposite direc-tion. (Drag the left handle to the right or the right handle to the left.) The object will flip horizontally.

or

Press Ctrl while dragging the top-center or bottom-center handle in the opposite direction. (Drag the top handle downward or the bottom handle upward.) The object will flip vertically.

you can flip an image horizontally.

the result

To mirror an object using the Transformations docker:

1. Select the object to be mirrored.
2. Click the Horizontal Mirror button and/or the Vertical Mirror button.
3. Click Apply to mirror the original object. or click Apply To Duplicate to mirror a copy of the object.

Sizing an object

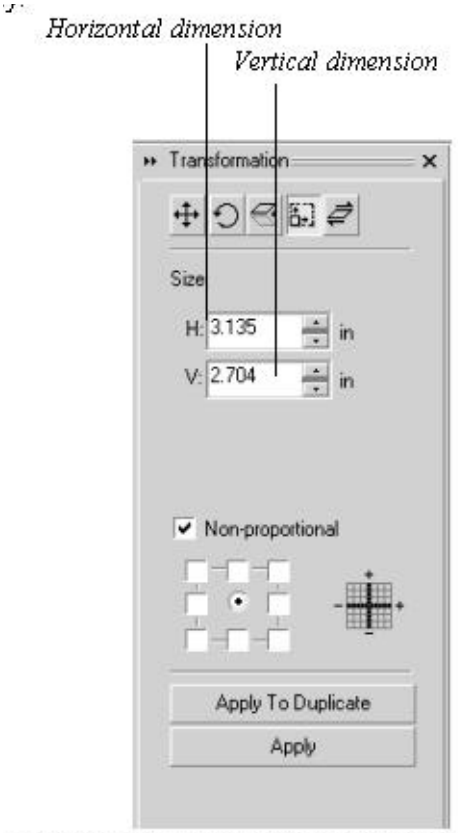
Sizing an object is similar to scaling it. But rather than changing dimensions by percent-ages. you enter *exact* dimensions for the object (for example. 6.5" x 4.75") in the Size tab of the Transformations docker. You can set the horizontal and vertical dimensions independently or force the new dimensions to be proportional to each other.

To set the size of an object:

1. Select the object to be resized.
2. To resize object *proportionately*, remove the checkmark from the Non-proportional checbox and then enter the H (horizontal) or (vertical) dimension. or

To resize the Object *non-proportionately* (where each dimension is independent of the other), enter the H (horizontal), V (ver-tical), or both dimensions.

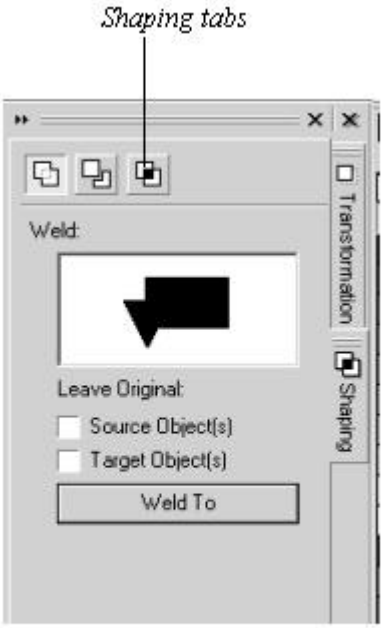
3. Click Apply to resize the selected object, or click Apply To Duplicate to resize a copy of the object. If you are proportionately resizing, the un entered dimension is automatically increased or decreased proportionately.



Use the Size tab to set a precise size for an object.

Shaping Objects

Using the Shaping docker , you can perform advanced procedures for working with combinations of objects. You can *weld* (merge multiple objects into a single object), *trim* (cut out overlapping areas of multiple objects), or *intersect* (create new objects from the areas of overlap between objects).



Use the Weld tab of the Shaping docker to com. bine objects

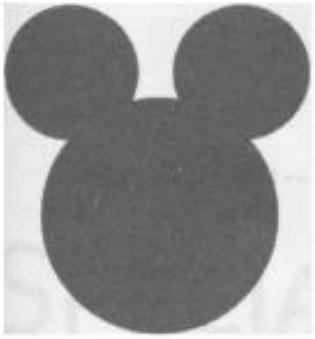
The Shaping docker works like the Transfor-mations docker. When you choose a command from the Arrange> Shaping submenu. the Shaping docker opens to the tab for the chosen command (Weld, Trim, or Intersect). Once the Shaping docker is open. you can freely switch from one tab to another by clicking an icon at the top.

Welding objects together

Welding lets you connect several objects to create one object. If you weld objects together that overlap, they bind together. Creating an object with one outline. If you weld objects together that do not overlap, they create a weld group that looks like separate objects but acts like a single object. When welding. one object (called the *target object)* is used as the anchor to which the other objects (called the *Source objects)* are welded.

To weld objects together:

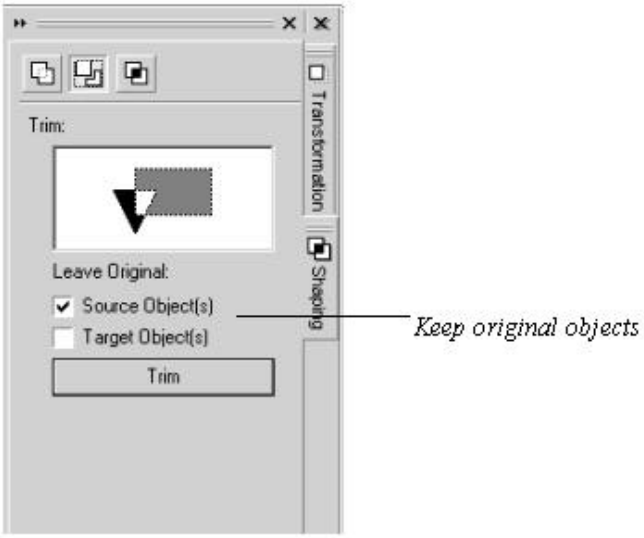
1. Select the source objects that you want to weld to the target object .
2. Choose Arrange> Shaping> Weld. The Shaping docker appears, open to the Weld tab .
3. To retain a copy of the target object, check the Target Object(s) check box.
4. To retain copies of the source objects, check the Source Object(s) check box.
5. Click Weld To.
6. Click the target object.



The resulting welded' object has a single outline and assumes the fill and outline of the target object.

Trimming objects

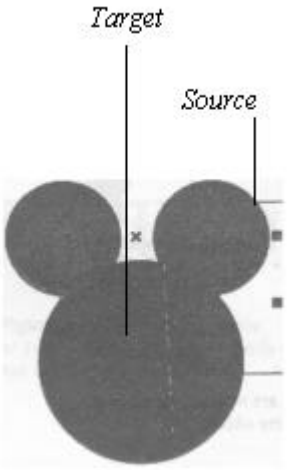
Use the Trim tab of the Shaping docker to cut out the intersect-ing parts of selected source object(s) from a target object.



Use the Trim tab to cut out intersecting parts of objects

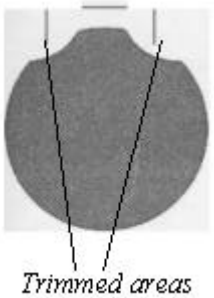
To trim an object:

1. Select the source object(s) whose intersection(s) you want to trim from the target object.



Select the source objects. Note the difference in outline and fill from the target object.

2. If you want to keep the target object. Check the Target Object(s) check box.
3. If you want to keep the source objects.check the Source Object(s) check box.
4. Click Trim.
5. Click the target object.The intersection(s) of the source objects are trimmed from the target object.

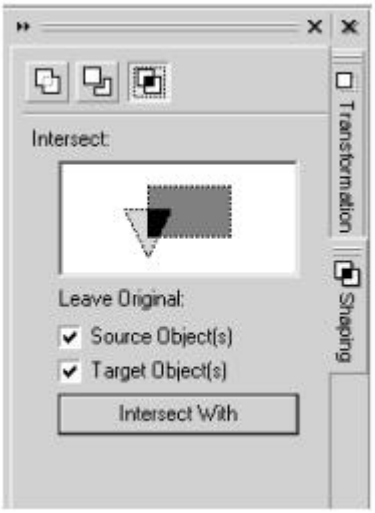


Trimmed areas

Trimming the two top circles from the large bottom circle leaves this toilet seat shape as the result.

Intersecting objects

You can think of the Intersect procedure as the opposite of Trim. That is rather than trim the intersections from the target. all that is left are the intersections. To perform an Inter-sect. open the Shaping docker to the Intersect tab.



Use the Intersect tab to eliminate everything but the overlapping sections of a set of objects.

To intersect objects:

1. Select the source object(s) .
2. If you want to keep the target object, check the Target Object(s) check box.
3. If you want to keep the source objects. check the Source Object(s) check box.
4. Click Intersect With.
5. Click the target object.

The intersection(s).are created as a new object .

This new object is the intersection of the circles.

Notes

LESSON 14
SYMBOLS, CLIP ART, AND BITMAPS

Symbols, Clip Art, and Bitmaps

In this chapter, you'll learn how to perform the following tasks:

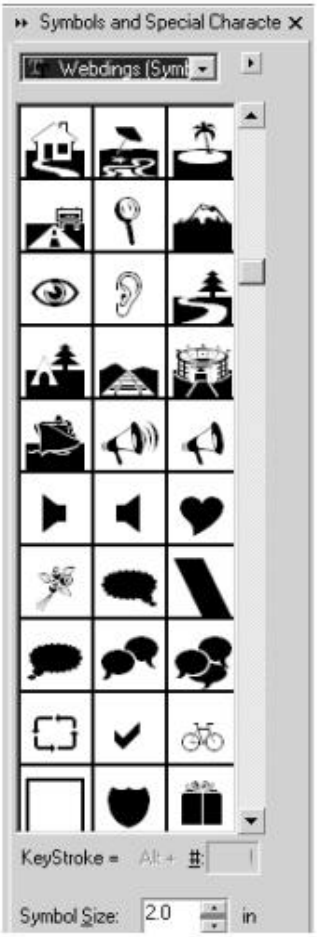
- Insert symbol characters (such as foreign characters, bullets, and dingbats) into text, place symbols as independent objects, and create symbols from your own objects
- Use the Scrapbook docker to insert clip art, photos, and bitmap images into your documents
- Convert vector objects into bitmaps and vice versa
- Embellish bitmap images using filters and correct them using a variety of controls
- Acquire bitmap images from connected external sources. such as digital cameras, desktop video cameras. and scanners

Working with Symbols

In CorelDraw. you can add symbols to your documents from fonts such as Wingdings and Zapf Dingbats. And you can take any graphic that you've created and save it in a symbol collection for later reuse.

Adding symbols to a document

There are two ways that a symbol character or any other text character. Such as a number or foreign' language character-can be added to a document: embedded within artistic or paragraph text or placed as a separate object. Within text. Symbols can be colored and for-matted with the same commands used for normal text characters. When placed as ob-jects, symbols can be resized, extruded. And manipulated like any other object.



You select fonts. symbol collections, and spe-cific symbols in this docker.

2. Select a font or symbol collection from the drop-down list.
3. Scroll down until you find the symbol you want.
4. To add a symbol to your document as a separate graphic object, click the symbol and drag it onto the document.

or

To add a symbol as text to an existing text string, position the insertion marker within the text string and double-click the symbol in the docker window .

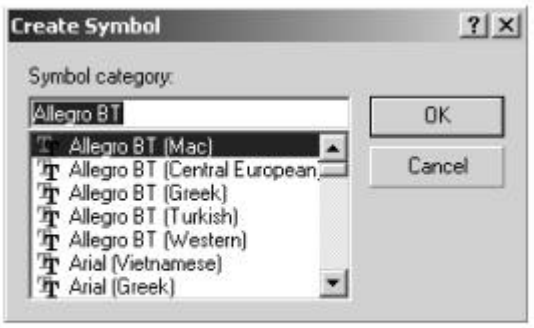
When placed as objects, you can embel. lish symbols by adding a drop shadow, a texture. or color,

Creating your own symbols

You can also create custom symbols and add them to any existing symbol collection or start a new collection of your own.

To create a custom symbol:

1. Use the Pick Tool to select the object that you want to turn into a symbol.
2. Choose Tools> Create> Symbol. The Create Symbol dialog box appears.

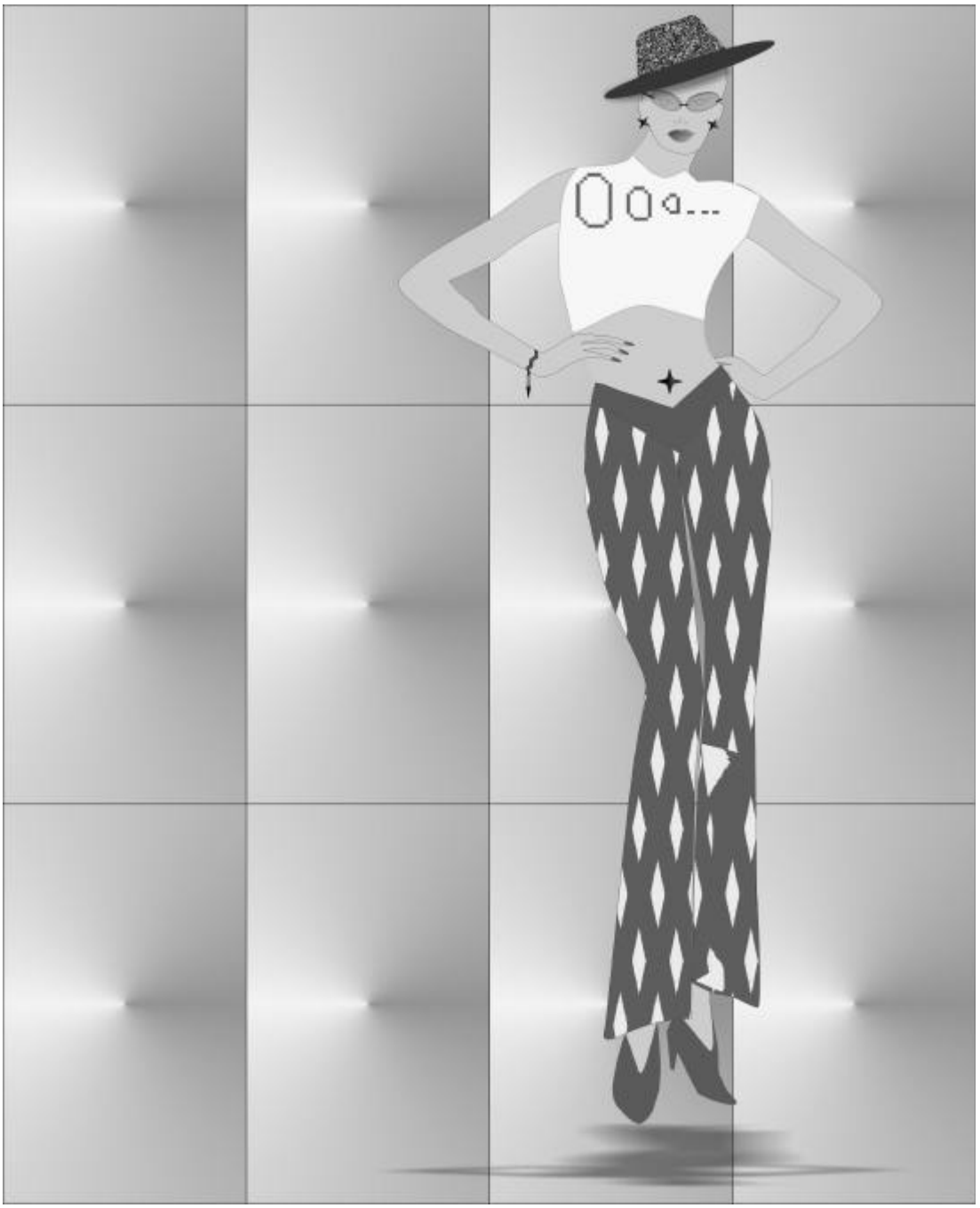


Select an existing font or symbol category or create a new one.

3. Select the symbol category in which you want to place the new symbol or type a new category name in the text box.
4. Click OK. The new symbol and/or category is now available from within the Symbols and Special Characters docker:

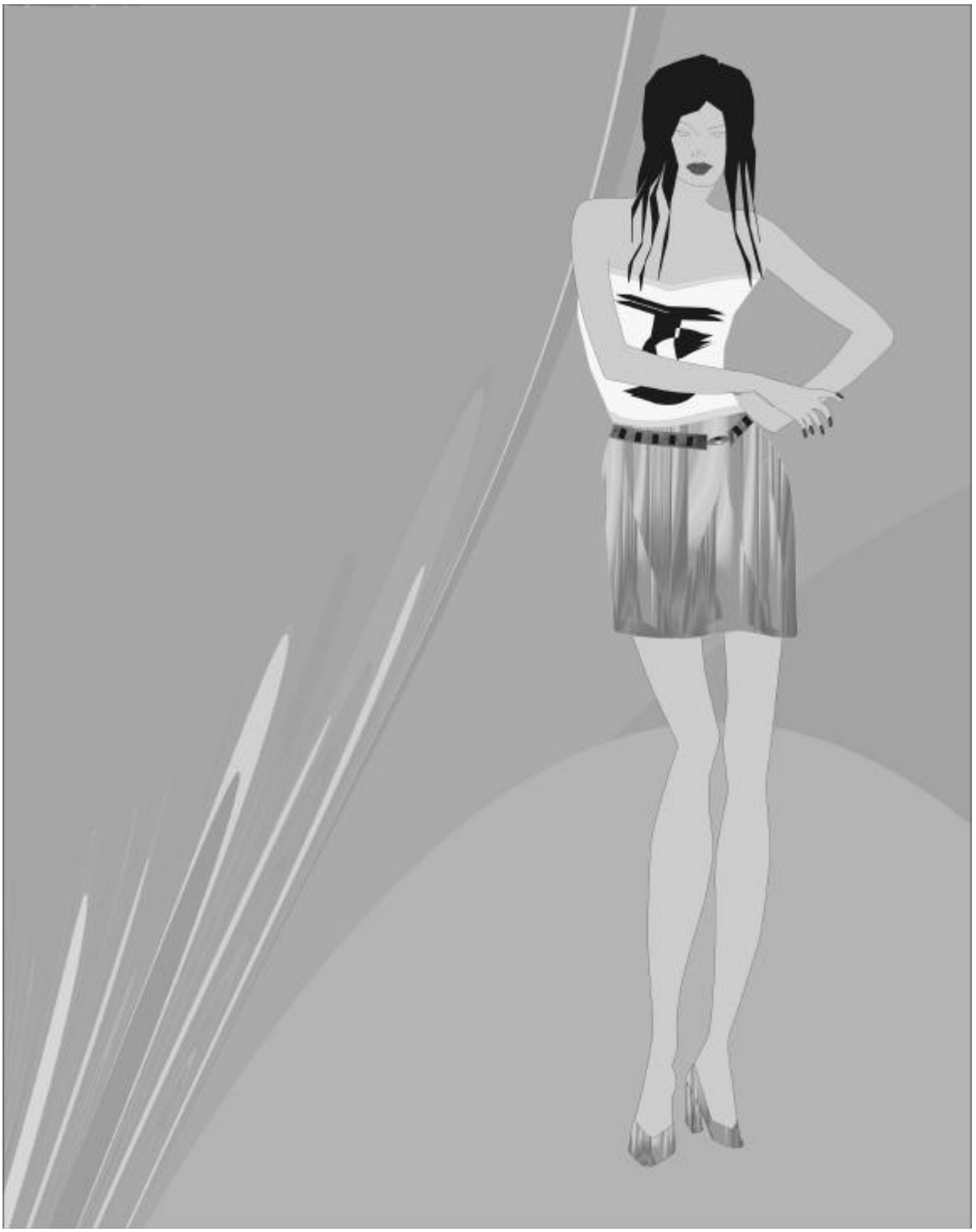
Use of Corel draw by fashion students:

As fashion design students, this Corel draw 10- helps a lot in draping. This helps in making illustrations using different tools such as: pick tool , shape tool , knife tool , free transform too l, eraser tool , free hand tool , artistic media tool , interactive drop shadow tool , interactive transparency tool , outline pen dialog , fill color dialog , fountain fill dialog , pattern fill dialog , texture fill dialog , convert curves etc.



by: Umed Singh

B.A.Hons Fashion Design

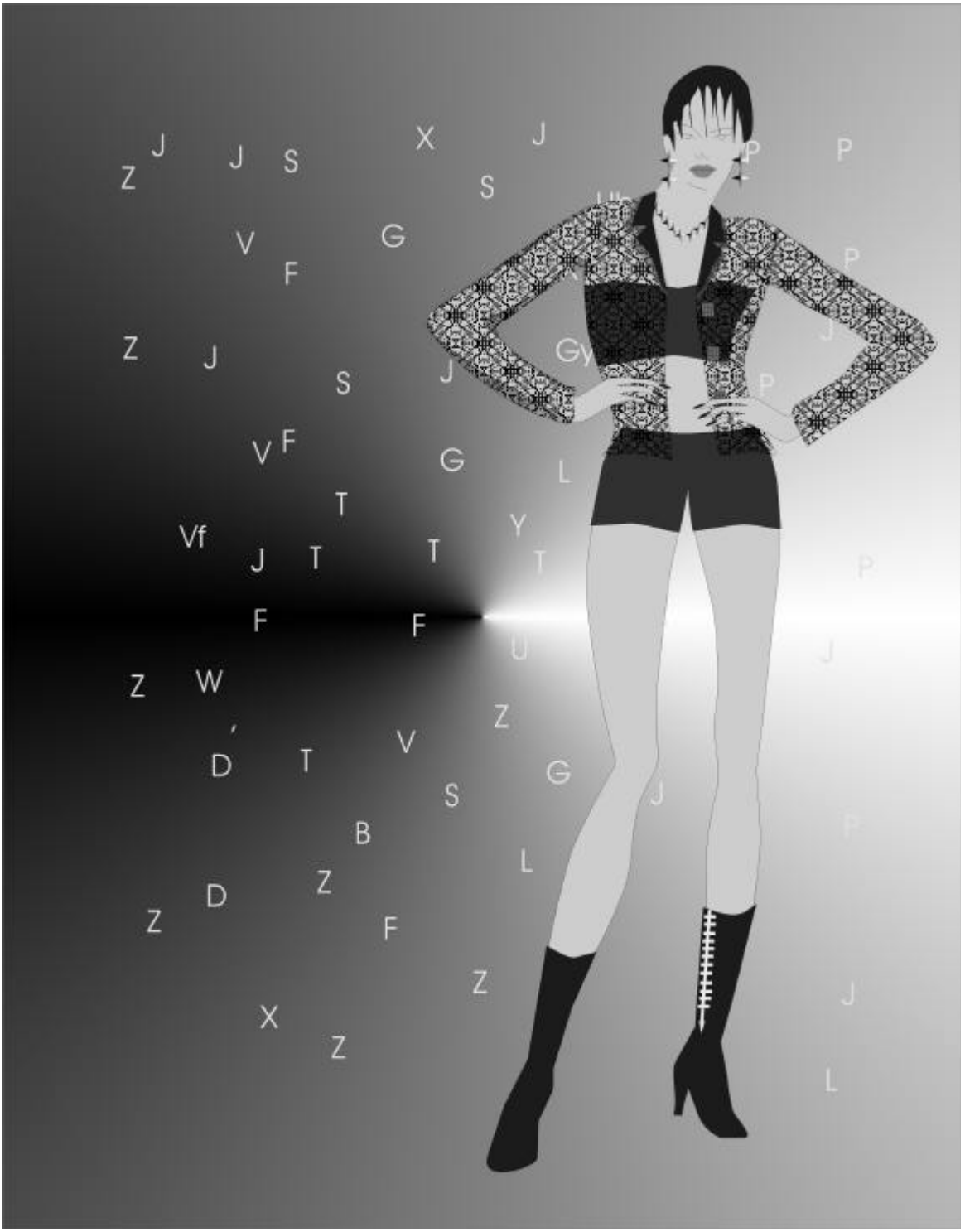


by: Umed Singh

B.A.Hons Fashion Design

by: Umed Singh

B.A.Hons Fashion Design



by: Umed Singh

B.A.Hons Fashion Design

by: Umed Singh

B.A.Hons Fashion Design

by: Ajit Praihar
M.A.(APQC)

by: Ajit Praihar
M.A.(APQC)

LESSON 15
INTRODUCTION TO PHOTOSHOP

- Introduction to Photoshop
- Bitmap and Vector Images
- Understanding Image Size and Resolution
- Opening a File

Introduction to Photoshop

Adobe Photoshop is a powerful application for color painting, retouching photos, and editing images. The program consists of full range of tools, which aid in selection, painting, editing, color correcting and also applying a vast variety of special effects. It excelles as an art production tool, and penetrates nearly every sphere of creative production, be it art direction, electronic publishing, graphic designing or animating; Photoshop has established its own niche. It creates and manipulates high quality digital images. It combines within itself, a wide range of options. The painting and editing tools for, e.g. allows to make changes in images, from subtle corrections to dramatic artistic effects. Images can be transferred by various methods into this program. Like importing from different file formats, by scanning a photograph, a slide or by capturing video images.

To describe Adobe Photoshop, solely as an image-editing program is a vast and broad concept. To some graphic designers, Photoshop is more of a philosophy than a software package, as its rich features and smooth interface, are incomparable in the world of digital imaging.

This program is provided you with Palettes and Toolbar. Palettes help you monitor and modify images. You can display or hide a palette as you work. The palettes, such as the navigator palette, allows to use the zoom buttons or type in zoom percentages to move a rubber band box around a thumbnail preview, which change the view and the zoom level of the image. The Toolbar consists of tool. Tools are used for creating and editing images.

The program is also provided with simple, intuitive tools for selecting areas of an image and trans-forming them to limitless imaginative objects. The selection tools can be used to select areas and move selection borders, giving the freedom to adjust the borders without moving the pixels out of position. The move tool for example, allows repositioning a selection physically. Moreover, any selec-tion which is pasted, is automatically converted into a new layer (Layers are like transparent sheets stacked one on top of the other) instead of a floating or temporary selection. Another great advan-tage, of this program are its transformation features, which allows to modify layers as well as selec-tions very conveniently, just by dragging the handles, it also lets you to preview the transformation effects such as the rotate and the skew, before actually applying them to the image.

This program can be used as an ordinary touch-up program, but its greatest strength lies in its Inher-ent features - as in the precise adjustment of color, adding special effects. One of the most. Distin-guishing feature of this program IS the “adjustment layers”. With these layers, you can apply tonal and color corrections to an image or to specific sections of an image, such as brightness or curve adjustment, to the image without permanently changing it. For example, if you create an adjustment layer to enhance the brightness or contrast, the new changes affect only the layers underneath the adjustment layer. Among the other features are the provision of selecting and opening multiple files. There are also special effect filters, which allow to produce dramatic effects to your work.

In the following chapters of this book, you will acquaint yourself with the features of this program and creatively use them for varied purposes.

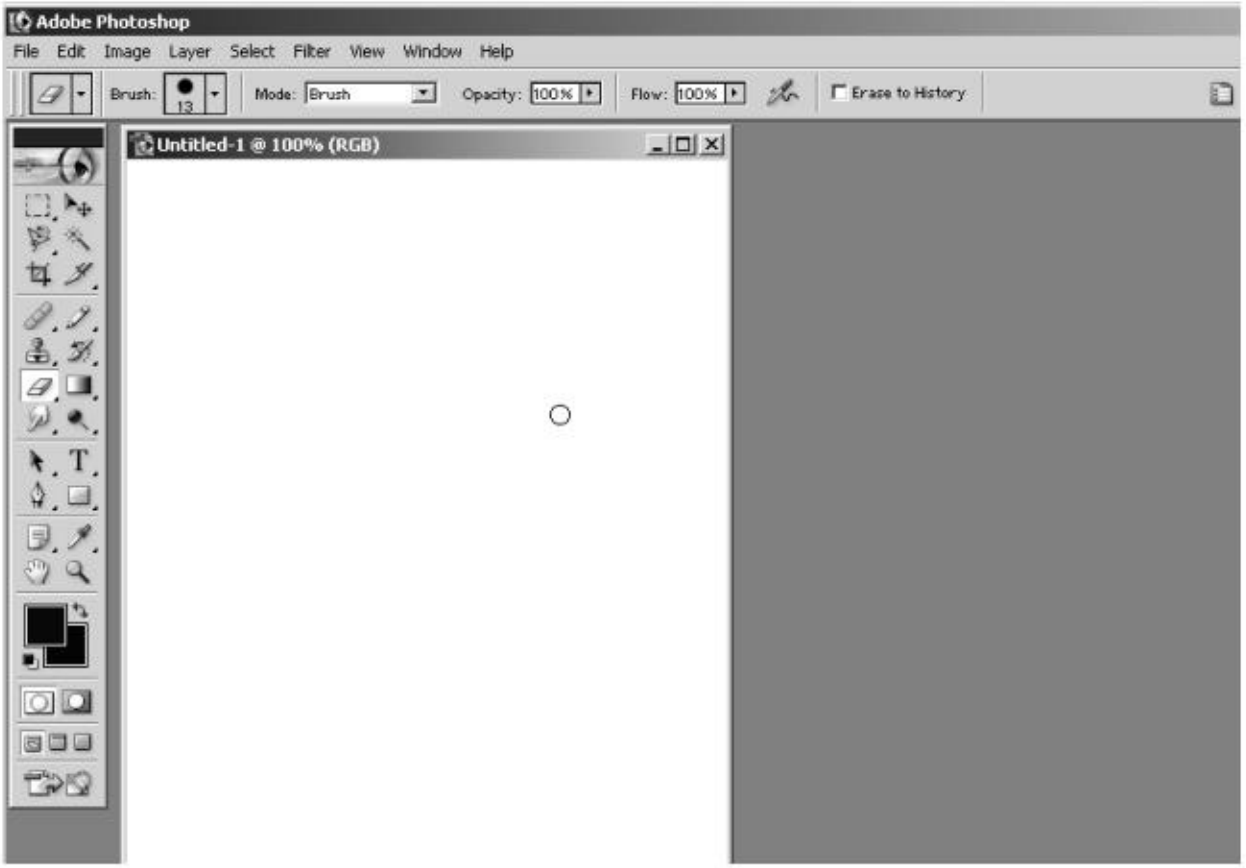
Computer graphics, literally meaning any kind of vividly descriptive writing or illustration, can be broadly categorized into two groups - the bitmap image and the vector graphics. Images created in Adobe Photoshop are bitmap images. These images are capable of representing even subtle grada-tions of shade and color. This is what makes it the most preferred choice for continuous tone images, like photographs or painting programs. A proper knowledge of the distinction between the two is extremely necessary, before you start creating and editing digital images.

Bitmap Vector Images

A bitmap image or a raster image is made of small squares or pixels, (derived from the word “picture element”). Each individual pixel in a bitmap has a specific location and a respective color value assigned to it. When we speak of working with bitmap images, we actually mean editing groups of pixels, rather than objects or shapes. The appearance of bitmap images depend on the resolution, or a fixed number or group of pixels. The image may sometimes appear unevenly cut or tom at the edge, if it is printed or displayed at a higher resolution than the one at which it is created.

On the other hand, by a vector image, we mean, images, which are made up of lines and curves, and are defined by mathematical objects, called vectors. These graphics are described according to their geometric characteristics, unlike a group of pixels in a bitmap image. For e.g. when we draw a circle or a square, or any shape in a vector-based program, the program creates the respective object based on its shape and size. This does not allow it to loose its quality, even when the images are moved, resized or recolor. These images are not dependent on the resolution, i.e. a fixed number or group of pixels. Therefore the images do not appear jagged, or loose their clarity and sharpness in any output device, at any resolution.

Despite their differences, the *common* factor is that both vector images and bitmaps are made of grid of pixels. The basic difference however remains as one being resolution dependent and the other vector dependent.



Understanding Image Size and Resolution

Before beginning with creating and editing images in Photoshop, you need to be familiar with certain factors like image size, resolution, file size etc., and their inter relationship with each other.

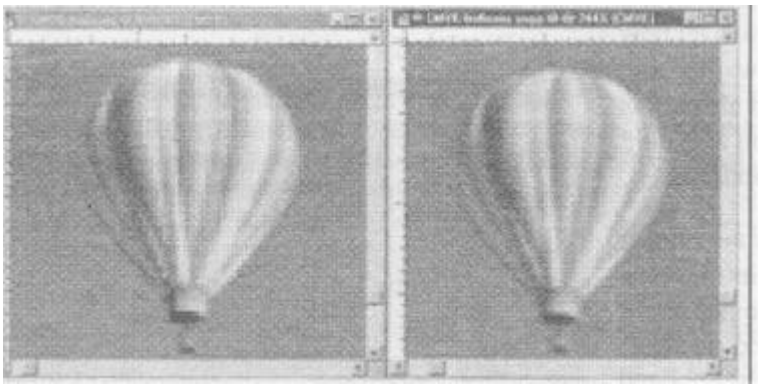
Pixel Dimension

Every bitmap image that we see, is actually constructed of a fixed number of pixels, which is mea-sured in tenus of pixel height and pixel width i.e., the number of pixels displayed along the height and width of the image respectively. The total number of pixels in the image, detennines the size of the file, or in other words the amount of data in the image. How large an image appears on the screen, is dependent on a number of factors, such as pixel dimension, the size and setting of the monitor, etc. E.g. a typical 13 inch monitor displays around 640 pixels horizontally and 480 vertically.

Image Resolution

Image resolution is defined as the number of pixels displayed per unit of length, in an image. It is usually measured in pixels per inch. An image with high resolution contains more, but smaller pixels than an image of the same dimensions with a lower resolution. The images, which use higher resolu-tion, use more pixels to represent each unit area, therefore they usually reproduce more detail and subtle color transitions when printed, than the one with lower resolutions.

However, when an image is either scanned or created at a given resolution, changing its resolution in Photoshop will not alter or improve the quality of the image because in such a case, Photoshop will only spread the same pixel infonnation over a greater number of pixels. When an image is created at a very low resolution, the image results in the production of a very coarse looking output. This is also known as pixelation . The resolu-tion *Alan* image is directly proportional to the size of the file. That is, higher the resolution, bigger is the file size.



Monitor Resolution

Is the pixel setting of the monitor, along with the size of the monitor? The default resolution of a Macintosh is 72 dpi (dots per inch), whereas for a PC monitor it is 96 dpi. This is important to know, while we are transferring a printed image to an on-screen image and also for converting image resolution to pixel dimensions. When the resolution of an image is higher than the resolution of the monitor, the image appears larger on the screen. For example, when we display an image which is one inch by one' inch in size, with a resolution of 144 dpi on a 72 dpi monitor, it appears as a two inch by two inch in size on the monitor. This is because of the fact that, the monitor can display only 72 pixels per inch, and it needs two inches to display the 144 pixels.

Printer Resolution

It is important for you to know about the resolution of the printer, specially when you prepare images for printing. The resolution of the printer, is the number of dots per inch, which the printer produces.

The resolution of the printer, is generally proportional to the resolution of the image, but it is not always true. Most laser printers have a resolution of 300 to 600 dpi and produce satisfactory results with images ranging Item 72 to 150 ppi. However, there are printers, which can print at, as high resolutions as 1200 to 2400 dpi.

Resolution and File Size

When creating images or artworks, it is helpful to know about the file size and the image resolutions. The file size of a digital image is measured in kilobytes or megabytes, and this is proportional to the total number of pixels in the image. This implies that, the higher the number of pixels, the larger the file size. The size of a file is related to the disk space needed to store a file, and also affects the speed at which the file can be edited and printed. Adobe Photoshop supports maximum of 30,000 by 30,000 pixel per image, i.e. if an image size is 15 by 15 inches, it will have a resolution of 2,000 pixels per inch.

Relation between Resolution, File size and Output

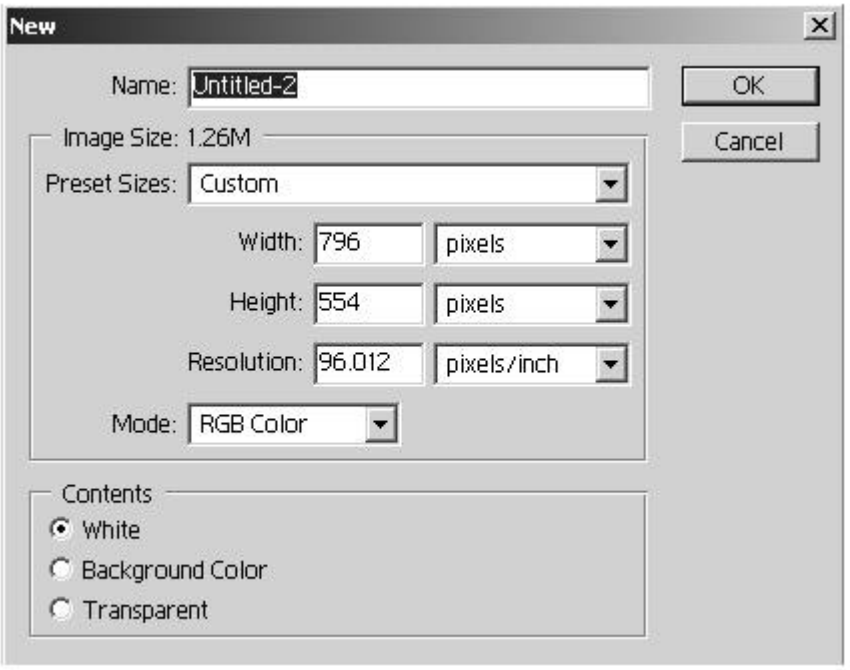
The file size of an image is the total amount of pixel information in the imag_. For example a 7 inch by 7 inch high resolution image, has more pixels, and therefore a larger file size, than an image having the same size but low resolution. While printing, a high-resolution image produces more detail than the same image, with low resolution. In packages like Adobe Illustrator, lines are used to create each shape independent of other objects and moving / resizing objects is simply achieved by clicking and dragging. In Photoshop,. when you draw a single line, create a shape or type a text, you actually fill pixels on the screen, similar to painting on an electronic canvas. If you need to move the object, you need to select the proper tools, which cuts the object Item the background so that it can be lifted and moved to replace other pixels.

As you are familiar with the different terms such as pixel dimension, image size, resolution, file size etc., you will now learn how to create a new file, and work on it, and also about the different tools available, and their functions.

When you start the Photoshop program its desktop appears like the picture, with the tool box at the left hand corner and the Command Menus at the top of the screen. You can select any tool by clicking on it, or pressing the shortcut key.

Opening a File

As you learnt earlier, Photoshop works on bitmapped digitized images, which means it converts continuous images into a series of dots or picture elements. Images can be brought into Adobe Photoshop by scanning or by importing artworks created in other drawing programs.



Opening a new file allows you to create a blank, untitled Photoshop image. To open a new file, choose File> New, and the following dialog box appears.
You can alter the size of the file in terms of *Height* and *Width*, by inches, centimeters, points, picas, pixels and columns. Similarly the *Resolution* can be set at either pixels/inch, or pixels/em. By default, Photoshop uses 72 as the default pixels per inch. The *Mode* of the image can be set at either of the following modes CMYK, RGB, Lap, Bitmap or grayscale. Contents allows you to set the back-ground
color of the image. For example, if *White* is selected, the image will be filled with white, which is the default background color. If *Background* color is selected, the image will be filled with the current background color and in case of *Transparent;* the image will contain a single layer, with no color values. .
If the resolution, height or width settings are made larger, the size of the image file grows larger.
Large images are generally avoided when you start working on a file. Firstly because, they are cumbersome to work with, secondly they slow down the speed of the computer. So it is always advisable to change the resolution setting, only when it is necessary. For example, if you create an image with the, purpose of getting it printed in a commercial printing press, the resolution should generally. be double the screen frequency. *Screen frequency* is also known as the screen ruling, and is measured in lines per inch. It is output of a printed image, in terms of detailing and clarity results as a combination of resolution as well as the screen frequency. After making all the desired changes in the New dialog box, you can click OK, to access the new file.
In the Photoshop tool box, the window controls are placed at the bottom of the tool box. These tools are used for controlling how images are displayed in Photoshop. The left window control, displays the image in the standard screen mode, the default mode with the menu bar at the top and the tool box at the side.
The center window control, displays the image in full- screen window, with a menu bar but with no title bars. If you need to scroll the image in this mode, you can do it either by using the hand tool or the navigator palette. This mode is especially useful while you are working on intricate areas of the image ‘in high zoom view in full screen mode with the menu bar.
The right window control displays the image in a full screen mode with a black background, but with no title and menu or scroll bars. Here too, you will use the hand tool to scroll through the image.

Notes

LESSON 16
PHOTOSHOP MENUS

Photoshop Menus

Menus are commands, which appear on top of the desktop window, while you are working in the program. For this program the menus available are the File, Edit, Layer, Select, View, Window. Each of these have within them different commands for specific uses.

The Context Menus

By context menu, we mean those menus which are context sensitive, i.e. they do not appear on the top of your screen. These menus display commands which are related to the active tool, i.e. the currently chosen tool. Context menus can be used as a quick way to choose commonly used commands of any given tools. Figure 1.04 displays the context menus. You will now learn how to display these menus.

1.Position the pointer over the image or palette item.

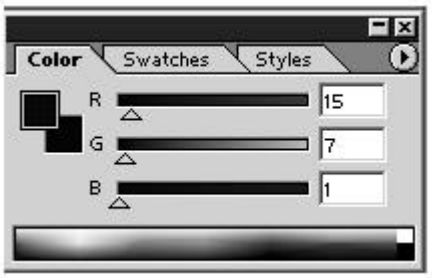
2.If you are using the Macintosh, press con trol and hold down the mouse button, and if you are working in windows, then click the right mouse button, the options for the currently selected tool will be available on the screen.

Palettes

So far, you have learnt about the different tools available in the program and the different options palette provided with each tool. But there are many more palettes than just the options palette. Now you willieam about the other palettes available, and ways of using them.

Using palettes

If a particular palette is not visible on screen go to Windows> Show (Palette Name) to see that
particular palette. E.g. if the Brushes Palette is not visible on screen you go to Windows> Show Brushes to activate it. If the palette is displayed on screen then to hide the Palette go to Windows> Hide Brushes. Show displays the selected palette at the front of its group; Hide conceals the entire group.



Photoshop includes a wide range of palettes which helps you in modifying and creating images. By . Default, these palettes appear stacked together in three groups, which can be reorganized to suit the your need from time to time. You can display and hide these palettes according to your needs, while I you are working with an image. The groups of palette include the following, the brushes/options group: contain the painting and editing settings. The picker/swathes group contain options to choose edit, and create colors. While the Layers/Channels/Paths group contain options for adding and delet-ing these elements in an image.

Displaying palettes

Displaying a palette becomes extremely necessary while you are working with an image. For ex-
ample, if you want to color an image using the colors from the swatches palette, you need to display the respective palette

Moving palettes

All the palettes that you find in Adobe. Photoshop, are floating palettes, which means you can and move a palette anywhere on the screen by dragging its title bar. Floating palettes always appear in front of the image you have on the screen. However you can move the palette to the right or left of the screen to view the image. All the palettes have pop-up menus. To choose a command, click the triangle at the right of the name to display the menu. Each palette also have, its own unique menu and offer different options.

You can increase your workspace by collapsing a palette, by clicking the zoom at the top comer of the palette group. You can click the zoom box again to display back the entire palette. Double clicking on the palette tab will allow you to ex-pand or contract a palette. Most of the palette in this program can be resized. with the exception of the picker and the options palette. You can also hide individual palettes by clicking the close box in the top left comer of the palette or you can do it by choosing the appropriate hide command from the window menu. You can also hide all the open palettes, by pressing the tab key once, and twice to view back again. lower right comer of the palette. If you have resized a palette, you need to click twice in the zoom box to collapse it. This is because the first click will return the palette to its default size, and the second will collapse it.

Reorganizing Palettes

By now, you are familiar as to how you can move and resize palettes. Now you will learn how to reorganize palettes. By reorganizing palettes we mean, that the palettes can be rear-ranged, sepa-rated and reorganized. For example, if you are using the color/swatches palette, and need to add color to your image from both the palettes simultaneously, it proves inconvenient to toggle between each of them every time, to reduce this inconvenience it is better to separate the palettes within the same group, or any other group as required. You can separate a palette ,from a group, by clicking the palette tab, and dragging it out of the original group. When you drag a palette over an existing group, it adds that palette to that group.

Using the Options Palette

Till now you have learnt how to open, hide as well as how to reorganize and resize palettes, now you learn about the options

palette which is available for almost all the tools. The direct selection, add delete convert anchor point, type and type mask tool. The name and appearance of this palette change depending on the tool which is currently selected. This palette contains settings that are common among several tools, like the painting modes and the opacity, or there are specialized options like the cloning settings for the rubber stamp tool. You can access this palette either by double clicking on the particular tool or you can access it from the window menu.

Notes

LESSON 17
COLOR THEORY

Color theory

While lines and shapes constitute the body of any design, colors are its soul. A world without colors
appears dull and lifeless. For every image, color has its unique ability to evoke unexpected dramatic responses.
Technically color can be defined as a ray of light, of particular wavelength and frequency. Beyond its technical restrictions, color is a curious thing, which can be measured, quantified and classified in the laboratory. For the human eye, color stretches its meaning well beyond the terms of frequency and wavelength. Color is information.
Our familiarity with color theory and terminology here, will help us understand how color is mea-sured, besides the information for displaying and defining print color values. Here we will discuss the standards which describes Photoshops correspond-ing color modes.

Additive color mixing

It is the color mixing process which can be demonstrated through the use of three projectors, ,each
with a red, green and blue color filter and a white screen. It is observed that almost all colors can be produced by the suitable combination of the three filters which are taken as the primaries in the additive mixing See Fig. 1.07. An ex-ample of the additive mixing of colors are the reproduction of natural picture in the color television or the computer monitor. The interior of the picture tube comprise of groups of dots, each group containing red, green and blue radiating phosphors which are activated by electron pulses correspond-ing to red, green and blue. The effect viewed on the screen! monitor is a result oftl1eprimary colors from the phosphors being added together to form a full color Image.

Subtractive Color Mixing

Unlike the additive color mixing, which are used to obtain colors in the screens and monitors, the subtractive mixing is used to obtain surface colors in prints, whether it is on paper or any other medium. The primaries used for this process are cyan, magenta, yellow and black. Before we learn about the different color models, some common terminology related to colors:
Chroma / Saturation: denotes the strength or intensity of any color.
Value: denotes the lightness or darkness of any color.
Hue: denotes the color name, such as red, green; blue etc.

The RGB Color model

Majority of the colors in the visible spectrum (the frequency of the light wave having 400nm (Na-nometer - way to measure wavelength (to 700nm intensity) are obtained by mixing the three different primaries such as the red, green and the blue components of colored light in different quantities or propor-tions. When these three primaries overlap each other, they create the secondary colors which are cyan, magenta, yellow and black. These three primary colors when combined form white. This is why they are called the additive colors. As learnt earlier, these colors are mainly used for video displays and monitors. Figure 1.07 shows the primary additive colors.
The RGB Mode in Photoshop utilizes the RGB Model. This allows each pixel to be assigned with a color value. This means, the pixel colors can be changed by combining various values of red, green and blue. Each of the individual color has a range from 0 to 256. Ifwe combine the 256 values of red, green and blue, the total number of possible colors would be (256x256x256) i.e. 16.7 million. How-ever, all these colors are not possible to obtain in printing.

The CMYK Color model

Unlike the RGB model which is based on the addition of light, the CMYK model is based on subtract -ing light. The RGB colors are used for monitor displays whereas this model forms the basis for the four-color printing process. Color printing is a four-color process, where the final colors are repro-duced by the use of four different colored plates (each for an individual color) - the cmyk, yellow, magenta and black. It is always advisable to work in the CMYK mode for images, which are created with the objective of being printed. As a printed page cannot emit light, combination of inks of cyan, magenta and yellow are used to reproduce visible spectrum (a band of colors produced by the

Color Gamuts

The gamut of a color s stem is the range of colors that can be displayed or printed. The widest variety of co ors In e visible spectrum are as viewed in nature. This spectrum contains all the colors that can be viewed by the human eye, Among the color models used in Photoshop Lab has the largest gamut and encompasses all the colors in the RGB and CMYK gamuts. The RGB gamut contains the subset of these colors that can be viewed on the computer or television screen. Some colors such as pure cyan or pure yellow cannot be displayed accurately on a monitor. The smallest gamut is that of the CMYK Model, which consists of colors that can be printed using process color inks. When colors which cannot be printed, are displayed on the screen they are referred to as Out Of Gamut Colors i.e. they lie outside the CMYK gamut. In RGB mode, you can identify out-of-gamut colors in the following ways:

- In the Info palette, an exclamation point appears next to the CMYK values whenever you move the pointer over an out-of-gamut color.
- In both the Color Picker and the Color palette, an alert triangle appears and the closest CMYK equivalent is displayed whenever you select an out-of-gamut color. To select the CMYK equiva-lent, click the triangle or the color patch .

As the name itself suggests, the Info palette provides infonnation. It provides infonnation is for the selected tool and for the color values of the image area, beneath the pointer See Fig. 1.13. This palette contains settings like painting modes and opacity, which are common to many tools and specific options for certain tools for e.g. the cloning settings for the rubber stamp. The tool also displays the x and y coordinates of the pointer's position in the image, making use of the units of measurement which you specify. Depending on the tool which you use, you can also use the Info palette to measure the size, distance, and the angle of rotation. The Info palette also provides other infonnation. For example, if you are using the CMYK values, and the pointer is placed on a color value which is out of the printable CMYK colors, the palette indicates a small exclamation mark, to identifY that the color is out of gamut.

While you are moving the Marquee tool, the Info palette provides infonnation on the Width (w) and Height (h) of the marquee, and X and Y co-ordinates. The X and Y co-ordinates are the starting and the ending position of the Marquee. While you use the crop or the zoom tool, the Info palette again displays the width (W), and height (H) of the marquee as you drag it. It also displays the angle of rotation of the crop marquee, if you rotate the selected area.

When you use the line, pen or the gradient tool, or you move a selection, the Info palette displays the *X* and Y co-ordinates of the starting point, the change in X and Y, the change of angle in A and the change of distance in D, as you drag the tool.

If you want to scale, rotate or distort your image for. any desired effect, and simultaneously want to view the changes, in terms of change in width, height, angle of rotation, vertical and horizontal skew, you will be able to view them in the following parameters such as (W), (H), (A) and (V) respectively.

Changing the Info palette

When you prepare any artwork or design, besides the line and the shape which constitutes the body of the design, the element which forms the soul of the design is color. You may want to see the Info platte when yellow in the CMYK image shows up lighter on a monitor than it does in print.

The Info palette in Photoshop displays two color readouts. By this, we mean that, you can view a combination of two modes at the same time, whether it is a combination of CMYK and RGB or CMYK and Lab mode. It also allows you to change the mode used for each of these readouts. You can also change the units of measurement, used to display the distance and size in the Info palette from inches and centimeters t6 pixels and picas.

1. Choose palette options from the Info palette menu.

If you want to change the color readout for the colors, in terms of Actual color, Total ink display and opacity you will do the following. But before that, you need to have a brief idea of the terms mentioned here

Actual color: When you create an image, it can be done with any of the color modes, like CMYK, RGB, HSB, Lab, Opacity, Total ink, Actual color, and Grayscale. While viewing the values of each color as a percentage in the Info palette, Actual color, displays the color in the current color mode, in which the image is created.

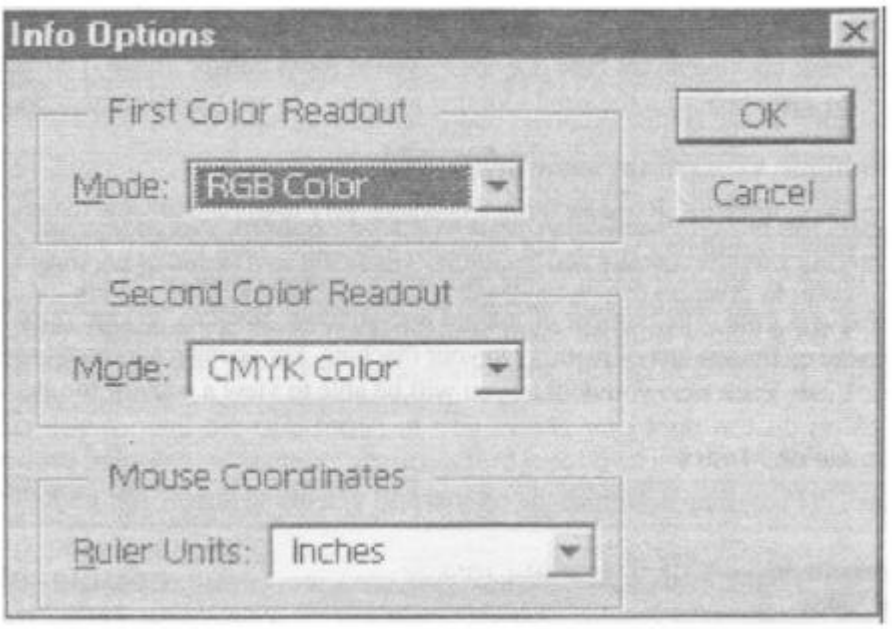
Total Ink: This displays the total percentage of all the CMYK ink at the pointer's current loca-tion.

2. You will choose any of these parameters from the mode pop-up menu.

Similarly you can also change the ruler units from the ruler units pop-up menu. However you can follow a quicker way of doing the same by clicking on the cross hair or eyedropper icon, respec-tively, in the info palette to display a menu with these options.

Grayscale Mode

This mode uses upto 256 shades of gray to represent the image. Every pixel of a grayscale image has a brightness value ranging from 0 (black) to 255 (white). The values in between 0 and 255 corre-spond to points on the grayscale spectrum. Grayscale values can also be measured as percentages black ink coverage (0% is equal to white and 100% is equal to black.)



RGB Mode

The RGB mode is the default mode for new documents. Use this mode for *displaying* color documents on the screen, and printing sliders and transparencies and RGB color prints. For RGB color images Photoshop assigns an intensity value to each pixel ranging Item a (black) to 255 (white) for each *of* the RGB components. For example, a bright red color might have red value *of246,* a green value *of 20* and a blue value *of* 50. When the value *of* each component are equal, the resultant is a shade *of* gray. When the value *of* each component is 0, the result is pure black.

CMYK Mode

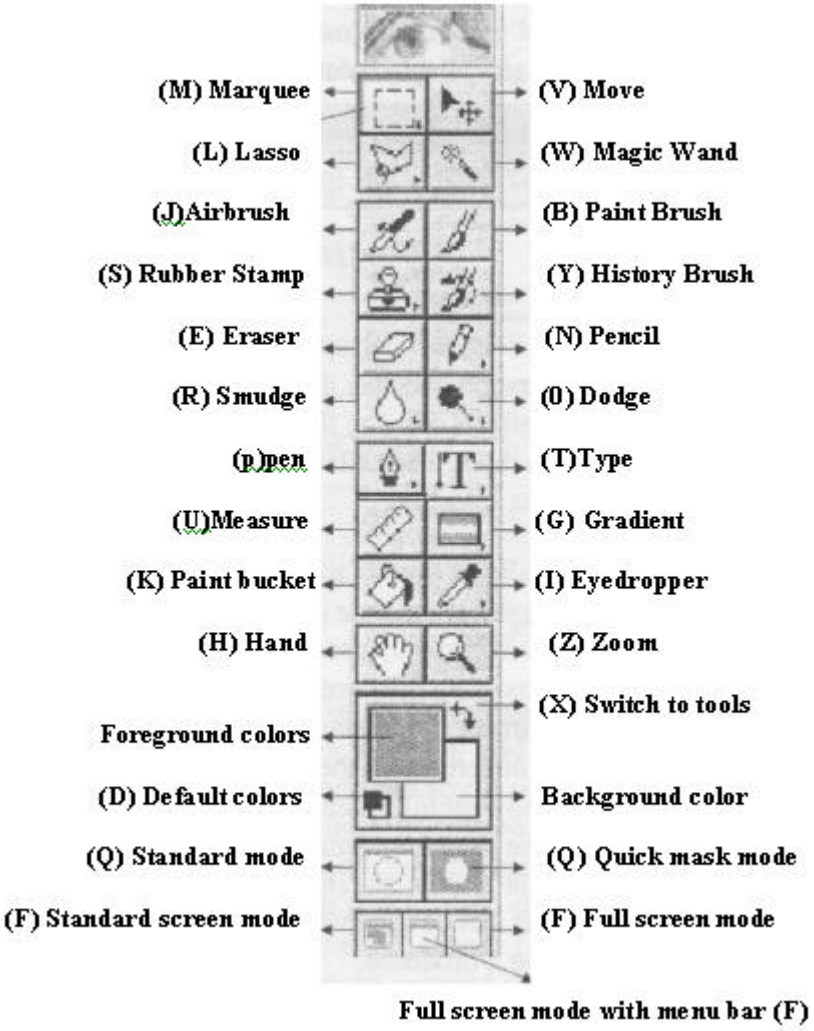
This mode is used when you are preparing an image with the objective *of* printing. It uses process color such as Cyan: Yellow, Magenta and Black. The process *of* converting an RGB image to a CMYK format creates a color separation. Each pixel in the CMYK image is assigned a percentage value for each *of* the process inks. The lightest (highlight) colors are assigned small percentages whereas darker colors (shadow) colors have higher values. Pure white contains all four components with 0% value.

Notes

LESSON 18
PHOTOSHOP TOOLS

Photoshop Tools

When an illustrator or an artist begins work, the first things he would require to start with, would include - a canvas on which to draw, brushes and pencils to draw with, eraser to remove unwanted
areas, and colors of various mediums to render different effects. Though final result depend upon the individuals use of ideas and creativity, these are the basic things without which he will be unable to visualize his imagination on a canvas. In other words, these are the basic tools required to produce any artwork.
Similarly, any art program, provides for its users, various tools which allow him to fulfill his imagination. Photoshop for example, provides over 46 tools in the toolbox, each with a specified utility. Combination of these tools are used while creating, editing, color correcting and plenty of other things Figure 1.17, shows the Photoshop tool box along with the different tools. When the Photoshop application is loaded for the first time after installation, the marquee tool remains selected, by default. When a tool is selected, its toolbox location turns black with its icon turning white.
You can select the tools quickly, by pressing the respective keys mentioned with the tool bar names. Certain tools also have hidden tools within them. They are identified by a small arrow mark at the right side of the respective icon.
Double clicking on an icon will allow you to access the options for that particular tool. In general, the first three tools in the tool box are the selection tools, which allows to make different kinds of selec-tions.
Commonly, the pencil, airbrush, paintbrush, rubber stamp are referred to as the painting tools. Though sometimes, the paintbucket and the gradient tool are also included in this category. Once you are familiar with the different tools, you willieam about their effective uses, for creating, editing, color correction of images etc.



Some of the tools are hidden tools, below is a diagram which shows the hidden tools for the respec-tive tool. You can access the hidden tool by simply clicking on the arrow to its side. By clicking the small black arrow you will get a flyout containing the hidden tools from which you can select..

The selection tools

- Marquee, (rectangle, circle, single row, single column.)
- Lasso, (polygonal lasso, and Magnetic lasso)
- Magic wand tool

Selection tools are used to select a particular area in the artwork or illustration, whether its for editing, adding color, color correction or any other purpose like adding special effects etc.
The first two selection tools which are the marquee and the lasso has hidden options within them. They allow elliptical, single row horizontal and vertical column selections besides a rectangular selection.
Double clicking on the marquee tool allows you to access to the marquee options palette, wherein you can click the style pop up menu to select the style of marquee, for e.g. 1. Normal, 2. Constrained
Aspect ratio, or 3. Fixed size. The most commonly used option is the Normal option. With it, freely drawn shapes enclose an area by approximate measurements. With the Constrained aspect ratio lets you easily draw perfect squares and circles if the number in the width and height boxes are equal. The fixed size option allows to set the dimension of the marquee, by specifying the height and width of the number of pixels. This is specially useful, when exact selections are to be made, or for other purposes. For example, the border in the following figure 1.19 has ‘been added by specifying a fixed size of 64pixel dimension as the height and width. By this, it was possible to obtain an even and regular border much conveniently. This can be used when you want all images in your document to be of the same size. E.g. While making a brochure.
The circular marquee is used to select circular areas. Similar to the rectangular marquee, it can also be used by specifying fixed dimensions. You can toggle between the different marquee options by pressing option in Mac or Alt in Windows and clicking in the marquee tool.
The lasso tool, allows to make free hand selections. Often, in artworks and illustrations, we find areas which do not fall in the preview of rectangles and circles, for example, an illustration of flower might have irregular petals or leaves. To select such areas, we make use of the lasso tool, wherein the exact shape can be selected by drawing the edges of the image with the lasso tool. The hidden option within this tool are the Polygon lasso, which allows to make free hand and straight-edged selections and the Magnetic lasso tool, which magically trails lines or snaps to edges, or lines of contrast differential, of the pixels you are selecting. The Polygon lasso tool can be activated simply, by pressing L on the keyboard. By pressing option in Mac! Alt in windows, and clicking on the tool, you can toggle between the normal, polygon lasso tool and the Magnetic Lasso. Double clicking on the Magnetic Lasso allows you to access its options palette.
The magic wand tool, allows to select parts of an image, based on the color similarities of the adja-cent pixels. This tool is specially useful for selecting odd shaped areas. For example, an image depicting cioudi may consist of similar colored areas scattered all over the image, to select the similar colored in such a case, with the lasso tool, would not only be a cumbersome process, but to an extent, would also not be perfect. For such cases, we use the magic wand tool. Different areas can be selected simultaneously, by holding down the shift key and clicking over the areas required. This tool can be selected directly, by typing W in the key board. To avert the job, of making minute and difficult selections time and again, which may be required at many stages of creating and editing the artwork, we have the facility of saving such selections within the select menu of the program.

The Move Tool

The move tool, allows to move an entire layer, or selected pixels in an image. (Layers - Photoshop organizes your artwork on separate sheet of transparent digital paper which are known as Layers. Layers let you construct composite images and experi-ment with various effects. This tenn will be explained properly in the later chapter) By selected pixels, we mean, the selections made by the magic wand, marquee or the lasso tool. This tool produces its desired effects by moving and position-ing objects from one place to any other desired place. The tool can be activated directly, by typing V on the Key board.

The Crop Tool

The crop tool is one of the hidden tools within the marquee tool, and is used to trim images, or unwanted areas in an image. Similar to the marquee options, as you have seen earlier, the selection hera, can also be made, by specifying particular pixel dimensions as the height and width. The height and width pop up menu allow for a wide range of choice in selection, from inches to points, columns etc.

The Zoom Tool

The Zoom tool is used for both, magnifying and reducing the image’s view ratio. In Adobe Photoshop, the view ratio is one monitor pixel to one image pixel. Changing the view ratio, only modifies the appearance of the image on the screen, without actually altering the size of the image. While working with artworks or illustrations, this tool often comes to use with an important purpose. Zooming ill over a particular area, helps in viewing the image minutely with all details, which would otherwise be missed in the normal view. The zoom tool can be accessed directly, by pressing on the key board, and when placed over the image, the icon turns to a magnifying glass. Clicking over that point zooms the area. You can select particular areas as the zoom in area for work, where you desire to currently. work on. Or the whole image can be selected by choosing zoom in option, Item the view menu bar. Similarly, to zoom out of the image or area, it is either possible Item the view menu, or a simpler method for the same includes holding down the option (in Macintosh, Alt in Windows) and clicking over the area.

The Hand Tool

The hand tool is often used in conjunction with the zoom tool, because while working in a magnified view, the entire image cannot be viewed. This tool allows to scroll through a docu-

ment, to view areas that do not fit within the Photoshop window. It allows more control than the scroll bars in the win-dows, because one can click on the document and scroll it in any direction. The tool can be activated directly by pressing H on the key board or it can be selected anytime, while other tools are selected, simply by holding the spacebar.

Summary

- Photoshop is an image editing program.
- Computer graphics are of two types: Bitmap images and Vector images.
- Bitmap images are pixel dependent.
- *Vector* images are made up of lines and curves.
- Pixel dimension: is the number of pixels along the height and width of an image.
- Monitor resolution: is the pixel setting of the monitor along the size of the monitor.
- Printer resolution: is the number of dots per inch the printer produces.
- The more the number of pixels in an image, larger is the file size.
- Tools are the basic equipment for creating and editing images.
- Selection tools: are used for selecting areas in an image for painting, editing or adding special effects. Marquee, lasso and the magic wand are the selection tools.
- Magic Wand tool makes selection according to the color of the nearby pixels.
- Drawing tools: Pencil, brush, air brush, eraser are the painting tools. Pencils of different hardness values, brushes of different diameter, angle, hardness and opacity can be created. The Wet edges option allow to simulate a real brush. The eraser tool can be used to revert back to the last saved version of the file, using the Erased to Saved option.
- Editing tools available in the program allow to blur, sharpen or smudge colors in an image.
- Menus are available in the desktop window. Each menu has a different set of commands *for* performing different functions.
- Palettes are stacked in groups of three. They can be resized, moved, and separated.
- Color exists due to light rays of different intensities. Red, green and blue light are the basis of all colors in nature.
- Additive colors: are used *for* video/monitor displays, are based on the mixing of colored lights. Red, Green and Blue are additive colors.
- Subtractive color mixing: are used *for* obtaining colors *for* prints and paper. Cyan, yellow, ma-genta, black are the primaries *for* this.

Notes

LESSON 19
PHOTOSHOP PATHS AND TOOLS

Photoshop Tools

- More about Paths
- Moving Paths
- The Drawing Tools
- Focus Tools
- The Gradient Tool

The Pen Tools

The Pen tool is a foundation tool in packages like Illustrator and Freehand. It has the ability to describe discrete pixel areas with the same mathematical language you would use for vector shape, The Pen tool is notoriously difficult to master but not impossible. With a bit of practice you can use the Pen tool to its best use. The Pen tool, allows mainly, to create smooth edged paths. I am very sure you people must be wondering what are Paths? The literal meaning of the word “path”, states it, as a track laid down for continual treading. The context to which, we will apply it here is also similar. A path, here, is a line or a curve, drawn using the pen tool from the toolbox. Although the paths appear on the screen, while you draw them, they are actually void of pixels Le. they do not appear on the print, with the image. The tool consists of six hidden tools within it. The tool can be activated directly by pressing P on the key board. The hidden tools within it consist of-

The Magnetic Pen Tool- Draws path around the edge of an object. When you double-click on this tool you get further options .

The Curve fit setting controls the precision of the [mal path as it relates to the movement of your mouse: If you want a precise path with a larger number of nodes then put a low value in the Curve Fit setting. The Pen width option sets the area in which the Magnetic Pen looks for an edge to which the path snaps. Frequency setting lets you enter a number that specifies the rate at which the Mag-netic. Pen places nodes automatically. In the Edge Contrast settings higher values are used _o detect edges that have strong contrast and lower values are used to find lower contrast edges.

The Freeform Pen paths - This Tool can be used to draw irregular path. You can use this as

an art tool, a tool with which you can create any shape. When you double click on this tool you just get one option which is the Curve fit option. This option works the same as for the Magnetic Pen.

The Add anchor point (the one with the + sign) and the Delete anchor points (the one with the - sign) The add anchor point tool adds anchor points to a path, while the delete anchor point tool, deletes points from a path,

Direction - selection tool - Direction - selection tool allows to select and move paths and part of paths.

The convert anchor point tool- The convert anchor point tool helps in converting straight -line segments to curved segments and the vice versa.

More about Paths

The use of paths in program simulates the use of tracing paper, in drawings, where they are used, to trace just the outlines of drawings. Similarly, in this program you can save e paths, in the Paths Palette, for reference. Paths are used to define shapes and painting areas, when the selections have very smooth edges paths are used, to define them, because paths always consists of smooth anti-alaised lines. You must have come across the term anti-alai sing a lot oftimes before, in this program. The option Anti-aliasing, is used to remove jagged edges, to produce smooth edged selections. This is done by partially filling the edge pixels, to make them appear semi-transparent. There are two basic advantages of using Paths, over the lasso tools, for making selections. Firstly, by default; the paths produce smooth anti-aliased outlines. Secondly, their storage in the Paths palette, requires very little disk space, and above all, if you are making selections as paths, you can alter the shape of the selections, to make it precise, until you are fully satisfied with it, which is very unlikely with the other selection tools. Before you actually start working with paths, you should know about a few terminology related to it.

Segment: The line which is produced by the points in a path is called a segment.

Anchor point: Defines where the path segments begin and end.

Curved path: They are also defined as direction lines, they determine the shape and direction of each curved segment.

Closed path: A closed path neither has a beginning nor an end, for example, a circle is considered as a closed path ..

Open path: An open path is one, which has distinct endpoints. For example, a wavy curved line is considered as an open path .

Sub path: A subpath consists of many connected series of segments. Drawing Straight Line Paths:

To draw a straight line path you just need to define two end points/anchor points of the paths seg-ments. You begin your work by selecting the pen’ tool, position the pointer where you want the path to begin and click to define the first anchor point. The anchor point remains selected (solid) until the next point is defined. To end the first segment of the straight line path, hold down the Shift key and drag the pen tool, (doing this will constrain the path to an absolute straight line) and click. The first anchor point will change to a hollow square indicating it is no longer selected. You can continue

clicking to set the anchor points for additional segments. If you want to end an open path, (line) click on the pen tool in the tool box. To create a closed path (square, rectangle or any shape) position the pointer over the fIrst anchor point you created, a small loop appears indicating that the anchor points are aligned. Click over it and the closed path will appear.

Drawing Curved Paths:

Drawing a straight path involves dragging the pen tool to select the anchor points, but for drawing curved paths, you need to drag the anchor points to set direction lines which define the shape of each segment. Select the pen tool Position the pointer at a place where you want the curve to degin click the mouse and the fIrst anchor point appears

- Drag away from the anchor point, as you drag you will fmd a direction line appear. You can hold down the Shift key to constrain the angle of the direction line to a multiple of 45 degrees. Releasethe mouse button when you have achieved the desired curved segment.
- drag in direction of curve to set first anchor point
- Position the pointer where you want the seg-ment to end and click the mouse button, and drag in the opposite direction to complete the segment. This way your first curve is created. To create the next segment for a smooth path, you will follow the next step.
- To end an open path, click the pen tool in the tool box. To end a closed path, click over the first anchor point you had created a small loop appears next to the pointer, click the mouse to end the path
- To create a simple curve, drag in the direction of the bump of the curve first and then drag in the opposite direction. When you drag the segments in the same direction, it creates an S curve See

Moving Paths

As the way you move selections, the similar method can be applied to move paths. The following i steps can be used to do the same:

- Choose the path in the Paths palette.
- Select the direct selection tool in the tool box.
- To select the path in the image which you want to move, hold down the Option key and click over the path (AIt click on a Windows platform).
- You can now drag the path to any desired location.

After you finish using the paths i.e. applying color or strokes etc. you might want to delete a part or whole of a path, from the paths palette, paths can be deleted by clicking on the trash button first and confirming by clicking OK, or alternatively choosing Delete Path, from the paths palette menu. As you already learnt earlier, the Make selection command in the paths palette allows you to convert a path to a selection, alternately you can convert a selection to a path using the Create Work Path command. While converting a selection to a path you have to mention certain Tolerance values, these values range from 0.5 to 10.0 pixels. The Tolerance value you mention are inversely propor-tional to the number of anchor points added in converting a selection to a path, i.e. higher the Tolerance value fewer will be the number of anchor points used to convert it to a path.

Short cuts:

- To activate the add anchor point tool when the direct selection tool is active, position the pointer over the path border where there are no anchor point and press Command + Option (Macintosh), or Ctrl + Alt (Windows).
- To activate the delete anchor point tool when the direction selection tool is active, position the pointer over an anchor point and press Command + Option (Macintosh) or Crtl + Alt (Windows).

The Drawing Tools

Now that you are quite familiar with the different tools used for selecting objects, and viewing them in various image ratios, we will proceed with, getting ourselves familiar with the different tools used for painting and preparing the art works.
Though Photoshop is mainly used as a program for retouching and editing images and photographs, ‘nevertheless allows us to prepare illustrations to certain extent. The tools about which you will learn now will aid you to have a proper idea about the different drawing tools available in this program, as well as their usage to a certain degree.

A pencil and a sheet of blank paper is probably what an artist would require firstly to start his work. In the same way, you will first learn about the different drawing tools available the program, the options provided within them etc. In the later chapters you will learn how to use them appropriately for their specified functions.

The Pencil tool

Since a pencil is the first tool required in beginning a drawing, you will learn about this particular tool first. The above figure shows the pencil tool, this tool can be activated directly, by pressing N on the key board. Double clicking on the tool, allows the access to the pencil options. As you find different varieties of pencils available in the market, here too, we can apply the different options to create our own style of pencil for our particular purpose.

The effect of the different pencils can be simulated: on the program by applying the various options I provided by the options palette. shows the options palette for the pencil.
We will now compare the different effects provided here with the original ones that are produced by the pencil, by changing the opacity and the pencil style options.

Width: the value you enter here is the width of the arrowhead. The value can range from 10 to 1000%.

Length: the value you enter here is the length of the arrowhead. The value can range from 10 to 5000%.

Concavity: the value you enter here determines the amount of curvature of the widest part of the arrowhead, where the arrowhead meet the line. The value can range from - 50 to + 50 %.

The Paintbrush Tool

As the name suggests, the brush tool is used for applying brush strokes on an image. The tool can be directly activated by typing B on the key board. To an artist, the brush is a tool, to create beautiful lines, and they come to their own, when making a line or a mark with a single stroke, unlike other tools. As seen ‘in fig 2.13, there are different kinds of brushes for creating different effects. Similarly, Photoshop offers the brush options palette, whereby you are allowed to select between the different

brush sizes available, It is also possible for you to create your own brush style for specific purposes.
Double clicking on the brush tool allows access to the brush options palette. This palette provides the facility to choose within a wide range of brush sizes.the pencil options palette the opacity level can be altered along with the style. This palette also allows the facility of producing effects of wet edges and the fade options, which will help you to render simulated effects, like the one produced by an original brush, done manually. We will now discuss the different brush options.

The Smudge tool

This tool is used *for* spreading color pixels across an area of an image The tool can be activated directly by typing R on the keyboard. You can use the tool extensively for creating artistic effects of color blends.

Before

After

The Paint bucket tool

This tool is used for filling similarly colored areas with the foreground color. The tool can be accessed directly by typing K on the keyboard. Double clicking on the tool will allow you to access the paint bucket option palette, which is similar to the option palette for other tools. This tool can be used whenever you want to fill an area with flat color

- The Eye Dropper Tool.
- Color Sampler tool.

The Eye dropper tool is used to sample colors in an image. For example, if you want to sample a particular color from a scanned image, for which the value is not known, you can make extensive use of this tool. By selecting this tool, and clicking on that particular color, you will find it appearing as the foreground color. The tool can be accessed directly, by typing I on the keyboard. With the Color Sampler Tool (The Hidden tool) you can use up to four color samplers to display color information for one or more locations in the image. These samplers are saved in the image, so you can refer to them repeatedly as you work, even if you close and reopen the image. See Fig. 2.36. The color information is shown in the Info Palette.
This tool is used for moving an image within its window. When you are working in a magnified view, you cannot- see the entire image. One way to move around the image is to use the standard scroll arrows and scroll bars, or else you can use the hand tool, to drag sections of the image. You can access the tool directly by clicking H on the keyboard or you can access it while using any other tool, by pressing the spacebar.

Summary

- The Pen tool is a foundation tool in packages like Illustrator and Freehand.
- The Pen tool, allows mainly, to create smooth edged paths.
- Paths are used to define shapes and painting areas.

Make selection command in the paths palette allows you to convert a path to a selection.
The effect of the different pencils can be simulated on the program by applying the various options provided by the options palette. Opacity percentage denotes the value or degree of darkness or being opaque. History brush Tool is used to paint with the selected state or snapshot on the History Palette. Pattern stamp tool paints the selection with a pattern. The Gradient tool allows you to fill areas with a gradual transition between two or more colors. Paint bucket tool This tool is used for filling similarly colored areas with the foreground color. Eye dropper tool is used to sample colors in an image. Hand tool is used for moving an image within its window.

Outcomes

Uses of Photoshop by fashion design students
As fashion design students, this Photoshop-helps a lot in making collages, photo image editing, mixing etc. This helps in making collages using different tools such as:
Marque, lasso, air brush, rubber stamp, eraser, smudge, pen, paint brush, hand, default colors, Move, magic wand, paint brush, history brush, pencil, dodge, type, gradient, zoom, background colors etc.

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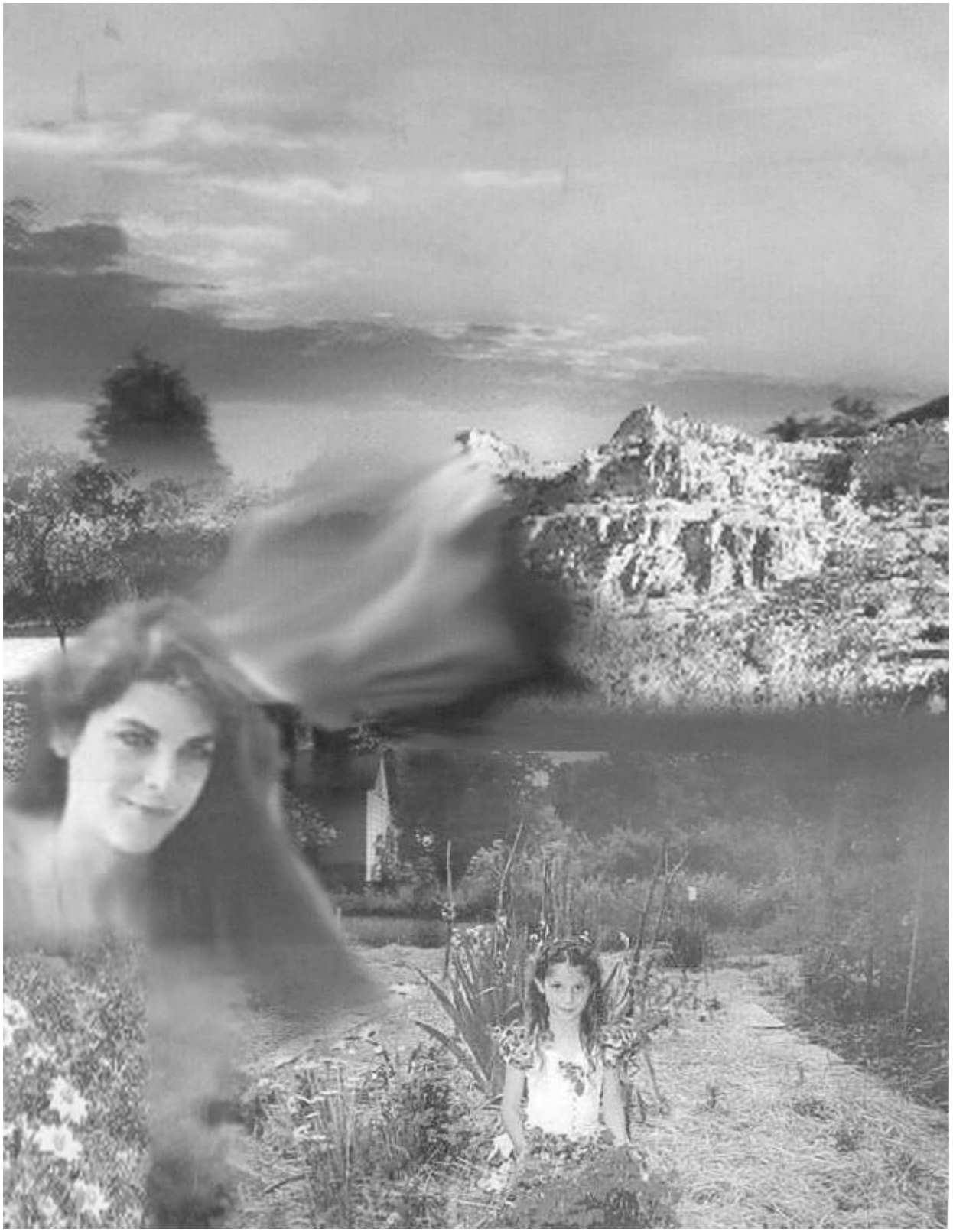

by : Ankita Modi

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